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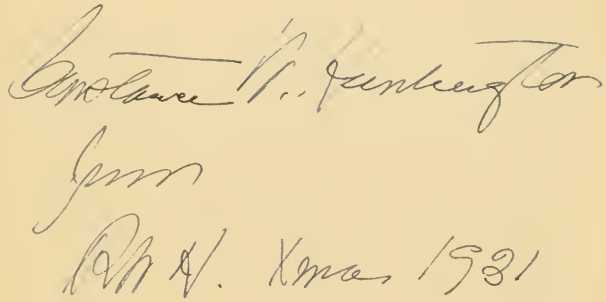

MEN OF THE TREES

The First Dance of the Men of the Trees

When Over Three Thousand Warriors Assembled in the Author's Camp

MEN OF THE TREES

IN THE MAHOGANY FORESTS OF KENYA AND NIGERIA

By

RICHARD ST. BARBE BAKER

Late Assistant Conservator of Forests
in Kenya Colony and the Southern Provence of Nigeria

With an Introduction by
LOWELL THOMAS

With photographs by
The Author

LINCOLN MAC VEAGH
THE DIAL PRESS
NEW YORK · MCMXXXI
LONGMANS, GREEN & CO., TORONTO

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PRINTED IN THE UNITED STATES OF AMERICA
BY THE VAIL-BALLOU PRESS, INC., BINGHAMTON, N. Y.

To

WILLIAM LANCASTER JENKINS

Formerly American Consul-General
British East Africa

In memory of many happy days camping in the Highlands of Kenya, and in grateful recognition of his friendly encouragement at a time when it was most needed

THIS BOOK
IS
DEDICATED

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INTRODUCTION

We were walking along the border of the Plain of Esdraelon, where Elijah girded up his loins and fled before the finger of Jezebel, where the Crusader knights fought the hosts of Saladin. Around us were the ghosts of a hundred ancient armies—but we were not thinking of them because before our very eyes, more history was in the making. A few hundred yards away we could hear the tramp of a conquering army. Up the famous old road to Jerusalem marched Tommy Atkins and his pals:—Yeomen from the counties of England, Scots from the Highlands, Gurkhas from Nepal, giant Sikhs from the Punjab, Jodphur Lancers from Rajputana, and swart Pathans from Waziristan. Behind them came the Bikanir Camel Corps, and the swaggering horsemen of the Australian Tenth Light Horse. They were marching up the same road that had resounded to the armies of the Pharaohs, the Babylonians, the Canaanites, the Philistines, the Israelites, the Legions of Rome, and Napoleon's grenadiers.

For weeks I had been with Allenby's army on its conquering sweep across the Holy Land. But what caught my eye and held my attention on the Plain of Esdraelon was something strangely removed from this pageant of modern war. Men were planting trees, the loafers and laborers of Arab villages industriously working under

the direction of British non-coms. They dug little holes and into each they pressed the roots of a tiny tree. They were planting the quick growing Australian gum tree, the eucalyptus. And why? That was exceedingly interesting.

Beside me strode Lord Allenby, tall and powerful, mustached, grizzled, figure of a soldier, figure of a cavalryman, figure of a British general. Allenby was much given to taking long walks among the scenes of the Holy Land. Often, if you were with him on one of these rambles, he would talk of birds. He was an enthusiastic student of bird life, and even during the heat of campaign he spent a little time nearly every day and would snatch a few minutes from his war maps and staff conferences to slip off to study the migratory birds that linger in the Holy Land as they wing their way North and South.

The conqueror of the Turks had a Yorkshire sergeant who was his companion and co-worker in ornithology. In the hours when the commander-in-chief might be occupied with the anxieties of the plans of forced marches and strategic moves in the region between Dan and Beersheba, the sergeant from the north of England would be stationed at some waterhole. And if some rare species arrived he would report to the commander-in-chief who would come down and watch the bird for a while before returning to his work of planning the overthrow of the Ottoman Empire.

But when I was walking along the edge of the Plain of

Esdraelon with Lord Allenby that day, he did not speak of birds. He spoke of trees. He told me that this country, which was now so bare and waterless had once blossomed like the richest valley in Spain, indeed had once been the Biblical land of milk and honey instead of brown and parched and baked as we saw it.

"Why?" I asked.

To which Allenby replied:

"Trees!" meaning—the absence of trees.

Man is ever wasteful of the rich green life of the forest. He destroys the trees with a prodigal hand. Then often Nature takes her vengeance. Man destroys the trees to make farm land for himself. Then, after a while that farm land lapses into desert. For the trees hold the soil and the soil holds the moisture of the land. When man destroys the leafy woods the rain washes the soil away and the bare, stony expanse remains. In Palestine the hand of man long ago swept away the forests. Century after century passed. Army after army swept over this ancient corridor. The rains came in their season, and each year the floods ran more quickly from the bare surface of the hills and slopes, with the result that today when the dry season comes the land is swiftly converted into blistering desert.

Lord Allenby explained this to me in a few brief words, and then told me that if the land were to be restored to its ancient fertile state it must be done by reforestation. Trees must be planted so that forests will grow up again and hold the humus and make soft earth which

will catch the rains and hold them and freshen the whole country with the influence of deep, rich woodlands. It was characteristic of the giant Allenby that he had turned from idea to quick practice and, as a flash of whim and poesy, had initiated a campaign of tree planting along with the rigors of war.

This is a recollection that during the years that had elapsed, had passed back into the dimness of memory. It was brought to clear reminiscence by a man and a book, by Captain Richard St. Barbe Baker and his present work, "Men of the Trees." In his person and in his turn of mind Captain Baker reminds me of dozens of similar British officers whom I have met in many parts of the world, a soldier devoted to some scholarly and scientific idealism. He is in all respects the blue eyed, ruddy faced, red mustached, British soldier type. The Britisher most often displays the characteristic British reserve in all matters, including his pet enthusiasm. Captain Baker, though, cannot hold himself to the often somewhat wooden British restraint, where the subject of trees is concerned. In his love for forestry he wears his heart on his sleeve. His manner becomes animated. His eyes widen. He speaks with a rushing enthusiasm—the wonder of trees—the necessity of forest conservation and reforestation—how fair fields will turn into desert if they keep destroying the trees—how arid wastes will bloom with the greenness of life and the colors of the flowers, if they will reforest. You feel the passion and the earnestness of the man who has given his life to a great

devotion. You sense the singular turn of poetry and exultation in the man who is in love with trees.

I always feel, in the case of a man and his book, that all I need to tell you is a word or two about the man. As for this book, it is thrilling, full of strange lore, strange lands, and the primitive peoples of the tropic forests. But it is for you yourself to read.

LOWELL THOMAS.

MEN OF THE TREES

Chapter I

HOW THE SAHARA HAPPENED

WHO are The Men of the Trees? They are not as some might suppose Sons of Tarzan or those little pigmy men who swing themselves from bough to bough in the tall trees of the forest, but they are a band of African Warriors who have pledged themselves before N'gai—the High God—to save their forests from destruction and plant trees everywhere.

The life and prosperity of the tribes of Equatorial Africa are inseparably bound up with the splendid forests which are the ancient heritage of their people. Lofty and dense, these forests have for countless centuries afforded shelter, food and fuel to the wandering inhabitants of these vast tracts of country. It is difficult for city dwellers in Western civilization to realize the tremendous influence of the primeval forests of Africa upon the lives of those peoples, who, from time immemorial, have dwelt beneath their shade. The very soul of the forest has entered into their folk songs and legends, and deep within their primal hearts is a feeling of awe and devotion for its vast solitudes and everchanging tropical beauties.

Everybody knows that trees, apart from their direct economic value, exert a beneficial influence affecting cli-

mate, agriculture, and even the very existence of man. This can be more clearly demonstrated in Africa where vast areas are drying up and are becoming depopulated as the direct result of forest destruction. Recent scientific research has shown that the Sahara has not always been desert. Remains of trees have been found on the banks of vanished rivers and on the shores of dried-up lakes. At the time of Mohammed it is estimated that about a million Arabs invaded parts that are now desert. They cut the forests to make their farms, moving on to repeat the same process of destruction as soon as they had reaped their crops. They brought with them vast herds of goats. It is probable that each Arab possessed about a hundred goats. Now a hundred million goats following in the train of a million nomadic farmers would not allow of much tree-growth, for the goat is the bête noir of the forest.

To the north of the Gold Coast, in a territory under the French sphere of influence, vast areas are drying up and becoming depopulated as the direct result of forest destruction. In certain tribes the chiefs have forbidden marriage and their women refuse to bear children, because they see the end of the forest in sight and they will not raise sons and daughters to starvation. They have been trapped in a wedge of the forest with desert right and left of them and desiccation travelling fast in their wake, while the shifting sand buries their poor crops, driving them into the point of the wedge for their present cultivations.

This graphically shows what may be the result of neglecting to form forest barriers when primitive methods of shifting agriculture are in vogue. In the wake of a destroyed forest large sandy wastes rapidly spread, and the planting of trees is the only effective remedy for holding up the shifting sands, and restoring the fertility of the land.

When, as a forest officer, I went into the Highlands of East Africa I came across a tribe of Bantu origin, who had earned for themselves the name of "Forest Destroyers" because of their shifting methods of agriculture. Their chief occupation was farming, but of an extremely elementary sort. Theirs is a system still common throughout tropical Africa, namely the clearing of a small patch of forest by matchet and fire, followed by a short period of cropping, and then its abandonment in order to continue the process elsewhere.

These African people were childlike, simple and impetuous. Their immediate concern was to make farms. Little did they dream of the value of the timber that they were destroying. These primitive agriculturists had no knowledge of the use of fertilizers, natural or artificial. All they and their forefathers knew, was that, if they wanted a plot of fresh soil capable of producing a crop of food, they would find it in the heart of the virgin forest. Naturally, therefore, whenever the seasons came round for sowing fresh grain and planting their sweet potatoes, they would go into the thick forest, cut down and burn the trees, even the priceless pencil cedar and

olive; and after harvesting two crops, would abandon their spoilt land to move deeper and deeper into the forest, leaving always behind them a trail of destruction. Hence the tribesmen earned for themselves the name of "Forest Destroyers."

This devastation of the countryside may seem like wanton destruction, yet the tribesmen did not act in any spirit of mischief. They were merely ignorant of the consequences of their recklessness. They did not realize that, by destroying the forests at this rapid pace, they would one day leave themselves without fuel to cook their food or building material for their huts and granaries. Some of the chiefs and elders of the tribe may have felt vaguely uneasy about it, but the younger men were quite unconcerned, caring little whether their womenfolk had to go two hours or two days' journey to fetch fuel, so long as they got their meals.

When I arrived in their country, I pitched my tent on a hill known as Muguga, which means, a treeless place, an apt description, for it commanded a view of a countryside once lovely with sub-tropical woodlands, now bleak and bare save for the scattered hamlets and a few distant Katinga, or sacred groves.

It was here, on the hill of Muguga that I held my Barazas, or meetings of Chiefs and Elders, and endeavoured to impress upon them the urgent importance of tree planting. Day after day, these Heads of the Tribe journeyed to my camp to hear what I had to say; and

night after night they went away fully determined that something must be done to remedy things, but not knowing how to begin. Their spirit was willing, but, said they, "We are old men and the work that you would have us do would require an army of Morans."

The Morans, or young warriors, for their part, lived their happy-go-lucky lives, not worrying themselves at all as to what became of their forests. If one talked to them of the importance of tree-planting, they would reply: "That is Shauri ya Mungu," God's business. It did not occur to them that if all Mungu's seed trees were removed, Mungu could scarcely be asked or expected to replace a great forest. One could not punish them, for they were too many; and how could one punish wrongdoers totally unconscious of their crime? "Sufficient unto the day" was their motto. It did not strike these young men that the destruction of the forests had anything to do with the decreasing rainfall, although their fathers told them that in the old days, when their land was covered with high forest, there was rain in plenty, and that what few crops they grew in those days were better than they were nowadays. Whenever there was talk about this tree-planting, everybody agreed that it was a very good thing, but the problem was to persuade them to plant trees without payment or compulsion.

I had given long talks in many meetings with the natives, but apparently the seed had not rooted and no action had resulted, yet I would not lose hope for I felt

there must be a way to do this work, and that I must find it. Something had to be done, and done quickly to stem the tide of destruction.

I went about my ordinary routine work, as assistant conservator of forests, and after some days the inspiration came. I had been watching ceremonial dances and had learnt that in these parts of Africa there was a different dance for every season of the year. There was a special dance when the beans were planted and another when the corn was reaped. When they were going out for a lion hunt these tribesmen worked up their courage by a special dance before sallying forth to slay their enemy. Even when there was nothing particular to do, again they would dance. Suddenly the idea came to me—why not a ceremonial tree-planting dance? Everywhere these young African warriors were pouring a vast amount of life and energy into their warlike skirmishes, forest burnings and dancing. I was convinced that such an impulsive body of stalwart young fighters could be influenced for good instead of being left to continue in old habits of destructiveness through sheer ignorance of better uses for their energy. I had thought of applying the principles of Boy Scout movement, but, when on a visit to Nairobi, I ventured to discuss the matter with brother officers, the idea of putting "natives" upon their honour was condemned as wildly impracticable and quite impossible. I was considered a visionary and but for the encouragement received from the American Consul General, a Roman Catholic priest from the Italian Mission, a

medical missionary, and a British settler, I might not have persisted.

As it was the height of the dancing season it came to me that here might be the opportunity for introducing this tree-planting dance, and in so doing reach the young blood of the tribe, for all the young men were passionately fond of dancing.

First of all I sent for the senior captains of the various N'gomas, or dancers, and when they came to my camp I said to them, "It is true, is it not, that you have a dance when the beans are planted, and another when the corn is reaped? Why not a dance of the trees?" "N'goma, ya Miti?"—dance of the trees—said they. "Trees are Shauri ya Mungu"—God's business.—"Why so?" I said. "If you cut down all God's seed trees, how can you expect Him to make young ones grow? If you kill all the women in the land, you won't get children. Don't you see, it is the same with the trees?" Their surprise showed me that they had not considered the matter in this light and slowly it seemed to dawn upon them what I was driving at. "Listen," I said, "in three weeks' time you shall have a great dance at my camp." This new dance, I expounded, was to be the Dance of the Trees, and I promised a prize of a fatted ox for the best turned out Moran, and, as their women could not possibly be left out on this auspicious occasion, a necklace of their favourite beads for the most beautiful damsel. The winning Moran was to be chosen by myself, assisted by a Committee of Chiefs, and the damsel was to be elected by the popular vote of a Com-

mittee of Morans presided over by my prize-winner. The captains of the dances excitedly expressed their pleasure at this new idea and hastened to their various towns and villages to spread the news.

Chapter II

THE DANCE OF THE TREES

At length the day of the great dance arrived. It was one of those perfectly fine days of glorious sun and crisp air to which one becomes almost accustomed in the delectable highlands of Kenya. As I dressed, I felt that at least the elements were with me, for the sun was already rising over the distant mountains; and when the early mists cleared, the snow-capped peak of Kenya caught the morning sunlight, while her sister Kilimanjaro, a hundred miles away, looked like a giant's breakfast table spread with a snowy white cloth hanging over its square top. It was hard to imagine that one was on the equator, for in spite of the sun as I sat down to breakfast I was heartily thankful for the roaring fire which Ramazini, my Arab boy, had kindled beside me.

I noticed that Ramazini was burning Mutarakwa chips. They made an aromatic fire, but it seemed a great waste to be burning this wood which I had recently found would make excellent pencils. Not many weeks before I had been walking through the forest and came across a fallen tree of this wood which some native women had been cutting up for fire-wood or to make slabs for the walls of their huts. I had picked up a chip

and smelled it and at once recognized the scent as being identical to that of the wood from which cedar pencils were made. I bit it and it tasted just like the pencils one had chewed at school when a small boy. I next whittled it and found that it had the usual whittling quality required by the pencil makers. I next sent samples to the School of Forestry at Cambridge where it was favourably reported upon by the wood technologists, with the result that a market was established for it. For it proved to be juniperous procera. Pleasant as the scent was when it burned I warned Ramazini in future to find other fuel, explaining to him that mutarakwa was too valuable for that purpose.

Early as it was, the excitement had begun, for soon runners arrived to say that their tribesmen were approaching in thousands. Three hours later these eager young warriors were massing in a great column between two hills, about a mile from my camp, where they were sorting themselves out and putting the finishing touches to their elaborate make-up, so that they might be ready for a big march past. This was to be a great day. It recalled to them the happy days when, in this same hollow, they prepared to sally forth to raid the camps of their hereditary enemies the Masai. War for them had no terrors. It possessed none of the horrors of modern "civilized" warfare. In the old days it had been little more than a pastime and the older men had been comrades in arms, so this indeed was a notable reunion. As was their custom they had formed themselves into their respective

irika, or clans. The Akiruru and the Achewa were there, the Adjui headed by the sons of old Chief N'duni, the Agachiku and the Ambui, each clan with their separate divisions and blood-ties. They came from widely separated villages, for although men joined the clan of their fathers their habitation was not restricted to any particular geographical area.

All these were now falling into order, clan by clan and becoming impatient to present themselves for the judging and the dance. Runners frequently arrived at my camp and anxiously inquired from my forest guards whether the white master was now ready to receive them. The message was brought to me where I was entertaining my friend the American Consul General at luncheon. I explained that they must wait a little while, for they were much in advance of time. Finally, as coffee was served I gave a signal to one of my forest guards and the great throng started to advance. They came on rank upon rank, carrying their spears and shields. As each clan of warriors arrived in front of my veranda they halted, faced about and proudly presented themselves for inspection. The discipline was good, for the captains of the dances had marshalled them in splendid order. On they came in a constant stream, prepared as if for battle, yet on the spear points was the ball of ostrich feathers to signify that they came in peace. With great dignity they marched past the raised platform which had been erected for the occasion and then, halted by their captains, they formed orderly ranks to listen to

the address awaiting them. For this occasion I had chosen Chief Josiah to be my interpreter. He was one of the younger chiefs and I had already received able assistance from him at previous times, for he was a brilliant orator and most popular with the people. Silence was called for, as I mounted the dais, which had been previously constructed and in Ki-swahili I bid them welcome.

"Men and Warriors," I said, "I have asked you here to dance, and it is my wish that you should enjoy yourselves, but there is something I would first like to tell you, something very important that you should know, for it is the business of everybody. A reproach hangs over your heads. The Masai are calling you "Forest Destroyers."

At the very mention of the name of their hereditary enemy—the Masai—there was a great stir through the ranks and three thousand spears flashed in the sunlight. If I had said, "follow me, we will raid the Masai, we will punish them," every warrior would have followed me then and there. They were properly worked up to do something. Nothing would have pleased them so well at this moment as to have gone on a foraging raid. But they were doomed to disappointment for I continued, "I agree with the Masai—you are 'Forest Destroyers.'" Josiah thought he had misunderstood me and asked me if I really meant to say that. I replied that I did and he literally interpreted. To my dying day I shall never forget the next few seconds that followed. The reaction of my words was intense. At one moment these warriors had been prepared to die with me—brothers in arms—

against their much hated foes, but now a sudden change passed over their ranks. It seemed as though they had released the grip on their spears and then tightened it again. I sensed bitter disappointment, estrangement and animosity, then, rapidly turning to hostility. But I repeated, "I agree with the Masai, you are in truth 'Forest Destroyers.' Too long have you cut down and burned the old forests to make your farms, and as you have advanced you have left a trail of ruin behind you. You have destroyed the forests that were your heritage, the forests that you should pass on to your sons. If you continue in your present ways they will not even last your own lifetime. You must all know that this tree destruction cannot go on for ever. Already your women have to go two or three days' journey to fetch fuel with which to cook your food. Soon there will be no more trees left."

A great silence had fallen upon the assembled throng. As I paused for a moment one could only hear a gentle breeze moving the leaves of the great solitary tree in the centre of the arena. Instinctively I dropped my voice as I continued:

"Since the coming of the white man many of you have learned how to build better huts and for better huts you will want more wood. The white man has brought the gari-ya-moshi, the steam engine and train, and you no longer have to walk when you want to go to distant towns to market your produce. But the gari-ya-moshi needs fuel which is got from the forests. The white man as you know is here to help you, and you have already

benefited from his instruction. Now the white man wants you also to help yourselves. He wants you to learn to protect the trees. In the past you have been forest destroyers, in the future you must become forest planters.

"Why is it that whenever you want a good farm you go into the forest to find it? Listen well to my words, and I will tell you. It is because trees improve the soil; the leaves of the trees fall on the land and make it good. If you wish to find good soil you must plant trees on your old farms before you forsake them altogether, so that when all the virgin forest is finished, you and your sons will be able to return and find new forests which you have planted and fresh soil in which to grow your crops.

"Listen well to my words, I am going to help you to remove the reproach that hangs over you, for today I am going to call for volunteers from amongst you, for men who will promise before N'gai, the High God, to plant trees each year and take care of trees everywhere. Thus the reproach against your tribe will be removed. No longer will men call you 'Forest Destroyers,' but rather they will look to you to lead the way and show other tribes how to plant trees and so perpetuate those great forests whose well-being is bound up with your own."

Up to this moment the tension had been great and all listened in breathless silence to Chief Josiah's brilliantly eloquent interpretation. I had been talking quite quietly while he had hurled out a marvellous flow of language, containing all the little idioms used in their native

tongue. From the very outset this able young chief had entered into the spirit of the occasion, and was putting the full force of his oratory and personality into his task. His last words seemed to raise a great weight from the mind of the assembled throng and they relaxed as I continued.

"As you all know, the spot upon which we stand today is known as Muguga. It is well named Muguga for save a solitary tree, here and three, the whole country, which was once beautiful with woodlands, now lies broken and bare. I call on you then for volunteers, for men who will join together and become Watu wa Miti, Men of the Trees, and who instead of destroying the forests will plant and protect trees everywhere."

I had finished speaking, but there was no applause. The only verbal comment was a chorus of "Namwega" coming from the old men, chiefs and elders. I leant back upon the table in front of which I had been standing and waited for a moment to see what the outcome would be. The captains of N'gomas were in earnest conversation with their clansmen, and little groups of friends were discussing something in which they were deeply interested. In a few moments there was a general hum of conversation. Slowly, deliberately, these war-clad warriors were making up their minds as to what to do. The captains drew together and again separated, returning to their clansmen. A brief pause, and then the senior captains called for order. Conversation died down and the first volunteers came forward.

There was no lack of response, and the foremost were from amongst the Akiruru, or Ethiga clan, whose association with the forest is hereditary. I had often talked to them of their Katinga, or sacred groves, and one warrior had confided to me that not many moons before he had been summoned to the death bed of his father to hear the old man's parting instructions which had been handed down to him in turn by his father. These instructions had been given under penalty of a curse devolving upon all those who failed in their performance of the duties contained in the warnings of a dying man. The old man had said, "Guard well the trees that stand on yonder Mirima (hill) for there N'gai communes with the spirits of great men and trees."

It was not surprising therefore, that the Akiruru, the clan bound by traditional duty to preserve the woodland shrine where chiefs were buried, should be amongst the first to respond when volunteers were called for to remove the reproach of the name "Forest Destroyers" from their tribe.

That day five hundred warriors came forward. I noticed that they did not all step forward with the same degree of animation and I suspected that many of them had been detailed for the task by their dance captains. So, acting upon my intuition, I intervened. Looking them over I exclaimed, "that's too many, all I shall require today is fifty. I am glad to see so many of you have expressed your wish to become Men of the Trees, but as there are so many of you, there is nothing left for me to

Forest Burning by Nomadic Farmers

do but to pick fifty." And this I did with the assistance of Josiah and other chiefs.

Splendid, stalwart, upstanding fellows all of them were, many of them sons of Chiefs or Head men and all of yeoman stock. These fifty stepped forward and holding their right hand toward the snowcapped mountains of Kenya took a solemn oath before N'gai, the High God, to plant trees and protect them everywhere. A badge of office was there and then tied upon their left wrist to remind them of their vow—a small brass disc bearing an emblem of the tree and the words "Watu wa Miti." The badge was fastened with a kinyatta, a narrow leather band, worked with green and white beads.

Before this simple ceremony was over every warrior present was wishing that he had been one of the favoured fifty. It was plain that a new rivalry had been started. These fifty were men apart from the rest, as it were, a privileged clan belonging to a new order.

Chapter III

RIDING THE BULL

HARD by the platform in a corral to my left was a fine young bull which was to be my present for the best turned out Moran, and all were by this time interested to know the result of the competition. It was no easy task for me even with the assistance of the chiefs to pick out the best looking warrior. A double circle had been formed and we first reviewed the front rank. Those that were in the running were motioned forward and gradually by a process of elimination we reduced the competitors to ten. Now the real difficulty of the task presented itself and it was here that the chiefs came to my assistance. After long and serious deliberation finally the winning warrior was selected.

This Herculean Adonis, now quite unabashed, set himself the task of choosing the most beautiful damsel. With great expedition and little or no hesitation he selected ten of the thousand competitors for the beauty contest. It was of interest to notice their facial beauty was not by any manner of means regarded as being the most important factor. As far as I could judge this Moran was considering the *tout ensemble*.

At this stage some of the old chiefs could not refrain

from rendering assistance. One even went so far as to raise the goat skin skirt of one fair damsel to observe more closely the line of her limbs.

Finally two were left and then ensued a heated discussion as to the comparative merits of their respective charms. One was coy and modestly demure—too shy for words—and the other was full of prepossession, fully conscious of her beauty. It was a problem which was obviously too difficult for the warriors to decide. In other words, as far as the girls were concerned, it was a dead heat. It was here that my American friend came to the rescue and promised a duplicate necklace of their favourite beads for the second damsel. When this news was broadcasted there was great excitement and all agreed that this was a splendid idea. I later heard that they were both betrothed on the following day.

All this time the young bull was becoming more and more restive. The corral was only a temporary contrivance and an extra butt was too much for it. Suddenly it gave way, and the next moment the impatient steer was running amok, driving the crowd in every direction. Quick as lightning the Moran of the day sprinted in his direction. Rodeo wasn't in it. With a terrific leap he sprang on the neck of the beast, grasping its horns in his hands and rode it to earth. That scene will always live in my memory as one of the finest competitions between man and beast that it has ever been my privilege to witness.

This was the signal for the great dance to begin. First

of all the men lined up in opposite ranks and began a rhythmic dance to song, without moving their positions. As the lilt of the song became more lively and the tempo increased each rank began to advance toward the other, until they were within a pace. Spontaneously at this point they reversed, going backward three paces, then forward two, until they had returned to the starting point. This was repeated many times and ended in a grand finale, when from sheer exhaustion they had to stop for a moment's rest. To me it seemed like a glorified game of "Here we come gathering nuts in May," and reminded me of my childhood days when we had picnic parties on our holidays from school.

The women, for their part, had spontaneously improvised a new dance, all on their own; for in the daylight it is not customary for the sexes to participate in the same dance. As the afternoon wore on the song and dance became livelier and at a given signal all began to wend their way homewards. As the younger members of the party dispersed in groups the older men and women began dancing on their own account. It was evident that the Dance of the Trees had caught on and all were anxious to participate in it.

Two days later I was sitting in my office busy with the ordinary routine work of a forester, issuing permits, for felling trees, interviewing fuel contractors for the Uganda Railway, signing on forest squatters to assist in the work of reafforesting the cut-over areas, when one of my forest guards reported to me that many Morans

wished to see me. There was already a queue of people waiting to be interviewed, and I indicated that these newcomers should wait until I was disengaged. My work in the office kept me till lunch time and when I went in the direction of my bungalow I found a number of Morans lined up. Approaching them I demanded, "What do you want?" One of their number stepped forward and pointing to his wrist said, "Bwona nataka saa," meaning "Master, I want a watch." I abruptly retorted, "I don't know what you are talking about." Turning to my forest guard, I said "Drive these foolish men." He thereupon dismissed them while I proceeded to lunch.

These young warriors returned to their respective villages and immediately went to their chiefs and said, "Why was that Master kali with us?" "Why did he drive us?" "What did you say?" replied their chiefs. "We only asked him for a 'saa,' " [1] said they. "Ah, that is not a 'saa,' that is a badge, and you only get that badge when you promise to be his men, and plant trees and protect the forests." So back they came from their distant villages, many of them having travelled sixty or seventy miles, and again they presented themselves at my camp. Again I was busily engaged in a heavy day's work in the office, but at lunch time I went to them and said, "What do you want?" One lad stepped out from the rest and replied, "Bwana, we want a badge, because we want to be your men. We want to protect the forests and plant trees everywhere." "Splendid," I replied. "Next week you may present your-

[1] Saa—watch.

selves for the initiation ceremony," and indicated the hour and day.

I must explain that a few days following the inauguration of the Dance of the Trees, two of the original members of the Watu wa Miti had come to my camp and informed me that they had lost their badges. I was unable to decide whether this had been actually the case or if it was merely a ruse to obtain two more for friends. It was obvious that the organization must be safeguarded. I only wanted to enlist those who had the ability to perform their promises and so I said, "This is a serious matter. Suppose those badges have been picked up by men who have not taken the promise. If that is the case, something must be done to protect our brotherhood." I immediately sent for Chief Josiah and consulted with him as to the best move to take. We eventually decided that it was necessary to immediately call a meeting of the original members and give them a secret sign and a pass-word. Gradually, there came into being a simple initiation ceremony, which was intended to express the spirit which characterized the movement.

Chapter IV

JOSIAH

I WILL now tell you of one of these impressively simple and yet, to me, inspiring gatherings. Here is a clear space in front of a solitary sacred tree upon whose great trunk has been tied the colours of The Men of the Trees, a white flag emblazoned with a green tree. In front of the tree in a hollow square, stand the original members under the leadership of the Forest Guides. Hard by the great tree, and close to the colours, stands the Master of Ceremonies who calls upon all members to prove their membership by holding forth their left hands bearing the insignia of office—the badge of The Men of the Trees. This same movement is the recognized salute of greeting amongst members. To make doubly certain that no outsiders are present, the Forest Guides are asked, "Are all present true members?" They make a rapid survey of the ranks and after a short pause reply, "All present are true members."

The Master of Ceremonies then puts the direct question, "Are the hearts of all men present Safi?" meaning clean. Each Forest Guide replies for his own men, "Every man's heart is Safi." Any member with an unfulfilled obligation, tree-planting or otherwise, cannot be said to have a Safi heart, and is not allowed to be present at such a ceremony.

The recruits who desire initiation are then introduced and warned of the consequences of lightly making promises which they may be unable to perform. After this solemn warning it has often been found that candidates will waver and fall out. Only those who continue in their desire to become members are allowed to repeat the threefold promise:

"I promise before N'gai, the High God, to do at least one good deed each day, to plant ten trees each year, and to take care of trees everywhere."

Next the attention of the candidates is drawn to the colours of The Men of the Trees. At this stage in the proceedings each candidate has a sponsor both in front and behind him and the Master of Ceremonies proceeds, in a clear voice, "They are green to remind you of your obligation to plant trees and white because your heart must be 'Safi.' " Upon the word Safi, the sponsor in front gives the candidate a sharp slap on the heart, sufficiently hard to knock him back into the arms of his second sponsor, who immediately pushes him forward, and upon recovering the candidate's eyes open to view the emblem of the green tree blazoned on the white background and tied on the ceremonial tree.

All that now remains is to give the newly initiated member the secret sign and password. The secret sign is a particular handshake which symbolizes the threefold promise. While the password, namely, Twahamwe, means "pull together," or as is sometimes translated, "we are all pulling together as one man." This word, Twa-

Chuka Girls

hamwe, is whispered into the right ear during the shaking of hands and thus implies unity of purpose.

The whole ceremony has a tremendous effect upon the simple and impetuous heart of the African warrior, and while it is true that at first he did not quite grasp the significance of doing one good deed each day, he did appear to be genuinely troubled should he fail to fulfil this part of his promise.

The idea of performing one unselfish act every day in the service of others was entirely new to the thoughtless pleasure loving warrior, and he did not quickly understand the idea underlying this pledge. This was evidenced when, some days after the first big initiation ceremony had taken place, a number of the new initiates came to my camp. I had been out all day in the saddle, riding round forest reserves, and had just returned, and very tired, was enjoying afternoon tea when Ramazini, my head boy, came to announce that a number of Morans were wanting to see me. Too weary to attend to further business I dismissed the matter, as I thought, when I told my boy "Kesho," meaning to-morrow. I was, therefore, somewhat surprised on going out into my compound after tea to find thirty or forty of the Watu wa Miti still waiting.

"What do you want?" I demanded. "Were you not told to come to-morrow? No more shauris [1] to-day."

One stalwart spoke up for the rest with winning frankness. "Bwana, we have come to ask you to help us to

[1] Shauris—business.

think of a good deed. In two hours the sun will go down and so far we have been unable to think of a good deed to do. Please help us."

I was nonplussed. The sincerity and genuine belief of those whom I had set on the way, demanded encouragement; they were intent upon doing something very definite there and then before sunset to help the cause for which they had volunteered.

Some months previous to this I had been carrying out extensive experiments with a view to discovering how that most valuable species, Muturakwa, juniperous procera, could be germinated. It appeared that there were few pure forests growing gregariously over any extensive area. I had given considerable time and thought to the solution of the problem of perpetuating this valuable tree. For many years my department had endeavoured to regenerate this species but so far their repeated efforts had met with almost complete failure. When sown in the nursery, not more than five percent of the seed had germinated. After three months' research in the forests, during which time I accumulated a vast amount of data, I had noticed places where clusters of Muturakwa seedlings were springing up thickly around the brown olive trees. At times I would find an old olive tree from whose roots had sprung a fine Muturakwa. Then it was I noticed that pigeons were feeding on the fruit of the Muturakwa and perching at night on the branches of the olive trees. Probably the branches of the Muturakwa were too rough for their little feet. It seemed that they

preferred the soft stem of the olive. After close investigation I discovered that the seeds that had passed through the guts of the pigeon germinated. It became obvious to me that this was nature's way of perpetuating this most valuable species. I had already created a demand for this wood which provided pencil cedar and this demand was rapidly increasing. I was now confronted with the problem of providing sufficient supplies of this wood to meet the growing call for it. I did not catch pigeons and keep them in the nursery to feed them upon the fruit of the Juniper, but I endeavoured to devise a process which would subject the seed to similar conditions to those acquired naturally. After the seeds were collected I soaked them in hot water to which I had added a diluted solution of sulphuric acid. After some hours of treatment, the seeds were partially dried and rubbed on zebra skins. Again they were soaked and partially dried and this process was repeated several times. When the seeds were sown ninety-five percent germinated.

The most convenient place for my nursery was hard by the platform of the railway station at Kikuyu, where I could obtain an ample supply of water for the railway hydrant. This was where the west bound trains stopped to take on water, while the passengers generally availed themselves of refreshments which were supplied at a tea store on the station platform. My millions of young Muturakwa delighted the Settlers, who had long sought the secret of growing what they realized was the most valuable tree in their country.

Within six months of the time of sowing, these seedlings were ready to be planted out, but I had not the funds available for completing this work. Every time the up-country train stopped at Kikuyu there were interested visitors to my nurseries and keen interest was shown in the results of my experiment, but now I feared that owing to shortage of labor and lack of departmental funds, many of these valuable seedlings would be wasted unless they were planted out before the end of the season. When these young warriors came to my camp wanting to fulfil their tree-planting obligations, it occurred to me that here was the answer and the solution of my problem, so I suggested that those who really wanted to do something to help might plant out fifty of these seedlings in a box.

It was the nursery practice to prick out the seedlings in boxes and grow them on for two or three months and as soon as suitable days for planting occurred, the young trees were taken up to the planting site in the boxes, so that their roots should not be disturbed or subjected to drying winds. Gladly, then, did these young warriors respond, and day after day, when they could not think of anything better to do, they would turn up in the late afternoon to carry out their self-imposed task.

The very simplicity of a good deed, just a simple service rendered to someone else, was too much for the immediate understanding of a warlike race who could more easily have fathomed the "good" of destroying a man-eating lion or performing some doughty deed like that of St. George and the Dragon.

The First Nursery at Kikuyu

It did not, however, take The Men of the Trees very long to learn what was really meant by a good deed. One of them very soon distinguished himself by his bravery during a fire, though he was a raw Shenzi, or bushman, on his first visit to Nairobi. This young lad, proudly wearing the new uniform of the "Watu wa Miti," was in the fore, rushing up cans of water when and where they were most needed, and by his courage and example to others prevented what might have been a very serious disaster. The news of his bravery was blazoned throughout the countryside as an example of what was meant by a good deed, and ever since then many daring deeds have been done in the endeavour to emulate this lad's action. But perhaps more important still The Men of the Trees are learning to perform little acts of kindness and to cultivate the elementary principles of chivalry in the true spirit of the movement.

But away on that hill of Muguga those young warriors stuck to their task of tree-planting. Some fetched water and sprinkled the newly planted seedlings; others erected shades to protect them from the sun; and in this first nursery they raised over eighty thousand young trees.

The time came for me to depart on leave of absence. I spent the next three months carrying out further research in the Cedar forests of the Mau Escarpment, endeavouring to find fresh supplies, while at the same time studying more closely the natural methods of perpetuating these valuable forests. At the end of this time I re-

turned to the old neighborhood of my camp and visited a friendly Settler.

The first day, Chief Josiah came to me in great distress. After the usual salutation and exchange of greetings, he blurted out "Bwana, shamba ya sanduka na harabika," meaning, "the farm of the boxes is broken." At first I failed to understand him and then it dawned upon me that he was referring to the nursery of The Men of the Trees, where these lads had carried out their voluntary tree-planting. "What do you mean?" I asked. "I do not understand." "Are you telling me that our nursery is destroyed?" "Kwale, Bwana—truly sir," he replied. "Bwana, piga m'pra'—the masters hit the rubber." He was trying to convey that a tennis court had been erected on the site of our nursery. At first I was dumbfounded at this news. I could not believe that any of my brother officers in government service could have been responsible for this foolish act, and I said, "Josiah, I cannot believe you." His simple response was, "Master come and see."

I immediately jumped on a pony and galloped up to the site of the nursery and there I found a perfectly good tennis court on the same ground where I had left a flourishing nursery of eighty thousand young trees. Realizing what the consequence of this official blunder might mean to the tribesmen I could have wept at the sight which now presented itself. There was no sign of a young tree in view. I sat down and waited for Josiah who arrived on foot a little later.

"Josiah, tell me what happened," said I. He said, "Master, when you went away this thing happened and at first we were mystified. But when they realized that this had been done by the orders of the big master of Nairobi, my followers were furious, but what could they do? Said they, 'This is Shauri ya Escali'—the business of government, and as you had gone away, there was nobody to tell their trouble to. And now they have gone 'for bush' and they will not do another thing like this for love."

All this time I had been thinking hard what to say, and how to meet this unexpected situation. I could not let down a brother officer however short-sighted his action may have been and immediately replied, "Josiah, don't be foolish. Don't you see this is the right place for the tennis court? I ought to have made it before I went away.

"It may have been all right for you to come here with the Watu wa Miti, when I was here, but this new master can't have you coming around every evening so near his camp." It was hard for me to control myself in the face of this bitter disappointment, for I acutely felt what it must have been for those simple folk, who, out of the goodness of their hearts, in response to my appeal had come round evening by evening to expend their labour of love in tree-planting. I was conscious that Josiah with that natural intuition so strongly developed in the primitive African, was reading me like a book and was sharing with me the same intense regret and remorse. Back of all this I felt a silent challenge coming from this fine young chief, who had willingly devoted so much

of his time and energy to furthering a movement which he believed to be for the good of his people, whose well-being was paramount to him.

I could not bear to remain here any longer, and leading my pony, I walked with Josiah in the direction of his country. After a few minutes silence I stopped and said: "Josiah, you know that little stream that flows through your land? Down below your camp, hard by the stream is some fine black soil. That is a grand place for a nursery. Your lads know now how to collect the tree seeds and prepare them so that they will grow. There is nothing to prevent you from making a nursery on that land and there you may plant as many trees as you desire."

I did not labour the point, but bid him farewell. Such was his influence with his people that on his return to his village he called his followers together and told them that he had seen me and that everything was all right. I had explained to him that the old nursery was the right place for the tennis court, that the young trees had obviously not been wasted, but had been planted out in the government land and that now they might have their own nursery in their own village and raise their own seedlings where nobody would interfere with them. Quickly a new nursery was prepared and instead of a mere eighty thousand trees, over a million were raised by their fresh endeavours.

This was not the end of the story, for eight other chiefs, fearing that I should love Josiah more than them, each competed with him in tree-planting and as the result of

an apparent blunder it is estimated that over nine million trees were raised by the Watu wa Miti that first year.

The Men of the Trees are organized throughout on a simple plan. The organization in the tribe is known as "the Forest"; the Forest is divided into "Districts" each taking its name from the most important tree found growing in that district; these again are divided into "Branches"; each Branch being in command of a local chief who holds the rank of "Forest Guide." Hence there are the Forest, the Trees, and the Branches.

Although started in Kenya Colony the organization is rapidly growing into a tree-planting brotherhood, and the ideals of The Men of the Trees are penetrating into some of the most remote places of the great silent Continent of Africa.

In Great Britain and in other countries of western civilization youth finds relief in games and the like; but games apart from tests of individual skill and prowess are themselves the product of an advanced civilization and do not readily provide a common meeting ground for people to whom they are unfamiliar. In the first instance at least, the appeal must be made to the imagination, and this was the appeal of The Men of the Trees movement.

Again, the uneducated must be shown a definite object before they can be expected to devote themselves to any constructive purpose; and as I have previously explained, the duty of The Men of the Trees is to guard and protect their woodlands and to ensure that when-

ever a tree is cut down or destroyed a new one is planted in its stead. This idea is sufficiently valuable in itself. But beneath it lie the foundations of a much wider ideal embodying the gradual uplifting of the public mind and leading ultimately to the highest standards of citizenship which are essential to the well-being of the world.

Chapter V

FOREST FOLK

In the fastness of a little-known forest in Equatorial Africa dwell a shy and elusive folk; for ever on the alert, they disappear into the heart of the forest should they catch sight of a stranger. I had heard of them first from the Arabs and had often wondered if it would be my good fortune to make friends with them. But although I marched for hundreds of miles conscious that I was being secretly watched by these strange forest dwellers, many weeks passed before I was fortunate enough to come into contact with members of the tribe.

My work for the Forestry Department frequently took me far off the beaten track and often for a month or two at a time I had been entirely cut off from other white men. Although I did not realize it at the time such experiences were not without their advantages. The worst thing I encountered in these forests were a particularly vicious breed of mosquitoes and greedy blood-sucking Tsetse flies, but my discovery of the forest dwellers proved to be adequate compensation for the discomfort caused by these pests.

One day I was walking in the dense bush when my attention was arrested by a strange sound. I at once stopped

and beckoned my followers to keep still. We looked about us, yet there was nothing visible but the dense vegetation. There were no fresh game tracks, nor were there signs of any human being having passed along the old game track upon which I was walking.

Still looking in the direction from which the sound had come I listened intently, but all was now quiet. It was that time in the morning when the sun begins to make itself felt. The birds and animals that had been foraging during the early morning, had already retired before the heat of the day. My forest guard recruited on the coast was never quite at ease in the bush; he was anxious to get on and, vainly endeavouring to disguise his fear, remarked, "Si kitu Bwana—it's nothing."

It was evident that he wanted to get away from this spot as quickly as possible. Only the night before, when I was giving him his orders, informing him that I intended to come in this direction, he had suddenly asked me for a day off so that he might go and see his sick brother forty miles away. He informed me that a messenger had arrived that very evening urging him to return home; and, as if to add emphasis to the urgency of the call, he informed me that he had heard that there was another messenger on the road bringing him the sad tidings of his brother's decease. This was so obviously a made-up story that I began to question him about his brother, and it was not many minutes before he admitted that no messenger had really arrived, that he had no brother in the village named, and that his only reason for longing to get away

was that he was very much frightened at the idea of going into this particular bush. He then went on to tell me of all the people who had gone into this bush and who had never returned. He got so much excited and talked so fast that I could with difficulty follow him. He was trying to convince me of the truth of some fantastic story about a fierce troop of baboons, who shot men down with poisoned arrows. For a while I thought that the poor fellow had taken leave of his senses, but I managed to calm him down, and told him that whatever kind of monkey-man or man-monkey was in that bush, I intended to walk through it on the following day, and that he would have to come with me.

Now that I was actually in the heart of the bush, I was beginning to wish that I had let the fellow go and see his imaginary brother. Again he repeated: "Si kitu Bwana," to which I abruptly replied: "Makalele!"—shut up. The next instant there was an unmistakable ripple of laughter as from a tiny child. The sound came from the dense bush, but could not have been twenty yards away. I quickly cut my way through the undergrowth, and came upon a small opening, where I saw an old man, sitting in a crazy booth, while near by were two small children, the elder not more than four years old. Upon closer examination I found that the old man was unable to move, for he appeared to be suffering from a damaged knee. He showed no signs of fear, and awkward though his position was, he possessed an air of dignity rarely met with amongst the natives in these parts.

In a little while I found that I could converse with him through one of my carriers and I learnt that he had been lying there for two moons. I gathered also that his woman had gone out to fetch food. Very soon she returned carrying in one hand a large bow and dragging behind her a young antelope which she had shot for the pot. Hanging the result of the chase on a nearby tree she picked up her water pot, and apparently without noticing me went off to fetch water.

The sun was by now very hot and was beating down on the little clearing. I ordered my carriers to make a stretcher, which they very quickly did, from strips of bark and staves, and we carefully lifted the old man on to it in spite of his protestations. In a little while the woman returned to find that the carriers were about to remove her man and she burst into a frenzy of rage. Like some wild creature trapped in a corner she sprang with one bound upon the carriers, who were about to shoulder their load, and quickly drove the four of them, stalwart fellows though they were, into the surrounding bush. She next returned to her man, bent down over the stretcher and, after caressingly running her hands over him from the soles of his feet to his shoulders, knelt by his side with one hand on each of his arms, fixed him with her shining eyes and burst into an impassioned musical speech. In a moment it was as though a spell had been cast upon him. He answered with his eyes but did not utter a word. She stopped speaking and half raising him

with her strong and supple arms embraced him fondly, caressingly, and laid him back comfortably to rest.

She now rose quickly to her feet and swung round and with defiance in every line of her body faced me—the first white man she had ever seen in her life.

I must admit that I had been deeply moved by this spontaneous display of affection for a helpless old man and as I looked at her, even as she was all trembling with rage, I loved her spirit. Spontaneous recognition of good will followed, and in an instant she was transformed. Such is the force of intuition in these children of nature that without my having spoken a word she instinctively knew my sympathy and felt that I was their friend and would not harm them.

By this time the babies were quietly sobbing, with their little arms clasped tightly about her bare limbs. Her first instinct was to soothe them, which she quickly did, for now, completely relaxed, she squatted near by and drew her babies to her breast and gently rocked them to and fro, leaving me to talk to the old man.

After the recent display I was convinced that more harm than good would be done by removing him, for said the old man, "If I leave this forest I shall surely die. My father and my father's father have lived here always." The woman joined in his entreaties that he should be left where he was. "For," said she, "have I not tended him well? Is he not my man? Who then can care for him better than I?"

Soon one of the carriers whom I had sent back to my camp came up with my medicine chest so I dressed the injured knee, and leaving a supply of bandages and iodine reluctantly passed on my way.

Two months later I was again camping in those parts. The first evening, just before sunset, an old man crept up to my tent. I at once recognized my friend of the forest and welcomed him with keen delight. He was now able to walk quite well and he said he had come to return thanks. He brought with him a tall, fine looking young man of the same tribe, who carried on his shoulder a live antelope which had apparently been trapped that afternoon. This he said was a present for me. I examined my patient's knee which was now healed and after the exchange of a few words he hurried off in the direction from which he had come.

All the next day I was busy with work in the forest and returned to my camp in the evening, towards sunset, to find the same old man again. This time he had brought with him two young men. The next day I moved my camp and pitched it twelve miles further on, and again at sunset the old man turned up, this time with four young men who after exchanging greetings would not be detained but quickly disappeared into the night. Thenceforth, night after night, as I journeyed through that forest region my old friend would appear just before sunset with two or three fresh followers, but never once did they accept my invitation to camp with my carriers. At length I discovered that my forest patient was none

other than the late chief of his tribe. At the time of his accident he had been succeeded by a younger man, for it is by only fit and able bodied men that the rank of chief can be retained.

Chapter VI

THE MAN HUNTERS

One evening one of the young forest dwellers came to my tent with unaccustomed haste to tell me that his brother had just been killed by a buffalo. It appeared that several of them, armed merely with bows and arrows, had attempted to shoot the "King" of a dangerous herd; for in every herd of buffalo there is a leader or King who is generally the strongest and fiercest of them all. This wild buffalo had charged at sight, knocked down his victim, and full of rage at having been hunted proceeded to vent it upon this unfortunate man. The poor fellow was terribly smashed up and died a short while afterwards.

The tragedy was recited to me in detail, and as I listened to the lurid story, a great feeling of pity came over me; added to that was a strong desire to exterminate the brute who had taken from me one of my forest friends, and in the hearing of all present I promised to hunt down the buffalo and have revenge. Turning to the boy I said, "I have heard your story. You will sleep under my tent flap to be near at hand, and to-morrow very early we will start out together; and I will not rest until I have slain the buffalo which killed your brother."

Dismissing the carriers who were standing round the camp fire I sent them to bed and quickly turned in myself, while the tired boy curled himself up under the flap of my tent and was soon asleep.

Next morning we were away long before dawn. Our route took us through the little camp where the boy had lived. His mother came out to meet us, and standing in the morning moonlight with hands outstretched she called upon the God of the Forest to give skill to the hunters.

We first went to the scene of the tragedy and carefully noted the footmarks of the buffalo and from there set out along a well beaten game trail leading towards the drinking place—a water hole in the forest—which was frequented by the herd. Here my guide was confident that he would find the spoor of the buffalo. Carefully he walked round the water hole, every now and again stooping close to the ground to make a more thorough inspection of some hoof mark. Soon he measured with his closed hand the width of an exceptionally large impression made in the damp sand by the buffalo. I had been leaning against a tree close by, watching his investigations with interest, but for the moment taking no actual part in them. I could see now that he had found what he was looking for, and from this stage onwards there was no hesitation. At once he gave me the direction and in a few seconds we were following hard on the track of the savage beast which, not many minutes before, had been drinking at this very hole.

It was now dawn and easy, even for me, to see in which direction he had gone. Although there were other buffalo in the herd this lad had got the culprit properly marked down and no time was lost in following up the track. Now and again the tracker would stoop and pluck a blade of grass which had been recently bruised by the foot of the animal in passing. Such is the skill of these sons of the forest that they can readily tell by examination of such a blade how long ago the game had passed.

As we proceeded the bush became more and more dense, and although we were following in the trail of the buffalo, at times we had to crawl on our hands and knees to get through the entanglement of scrub. We followed with the greatest care and precaution, fearful lest the sound of a breaking twig should betray our presence, for we knew full well that if the buffalo scented us first there would probably be another tragedy; a charge by the infuriated buffalo, a short sharp shock, and all would be over with one or both of us.

While I was leading the way, with great caution following stealthily the now well defined track, my follower suddenly caught at my shirt sleeve bringing me to an abrupt standstill. With every muscle tense he silently drew himself close up to me. I could feel his heart beating as, intently peering over my shoulder, he raised his chin slightly protruding his lips to indicate the direction of the quarry. There, not ten paces away, stood the King of the herd—the man-killer. Although we were so close to him my view was obscured by the dense scrub

Katootero and Carriers, with One of My Leopards

and all I could clearly see were his nose and the tips of his horns which indicated that they were enormous. For the rest, all that was visible was the merest outline of his huge body.

The instinct of self-preservation caused me involuntarily to look around for a tree behind which to shelter, but a glance showed that there was nothing of the kind in the immediate vicinity. It was indeed a tight cover. In my endeavour to get a shoulder shot a twig snapped and our lives hung in the balance for the next few moments. There was a terrific snort and for a terrible two seconds it seemed as though the whole herd were charging down upon us, but what actually happened was that they most unexpectedly cleared off in the opposite direction.

I got up from my crouching position and measured ten paces from where I had been to the foot marks of the front feet of the buffalo. Apparently his cow had been lying in front of him and the remainder of the herd on the other two points of their triangle. It is a well known fact that in these forests buffalo, when they lie up for the day, always make this formation, one of them taking turn to stand and be on guard at his point of the triangle until relieved by another, so that from whichever way an enemy may approach he will be observed by one of the three standing animals and the alarm will be given.

I was unwilling to return to camp after having been so close to the quarry without having fired a shot. However, the brother of the dead boy protested that it would

be impossible to get another chance of coming close to the herd again that day, so I decided to return to camp. The bereaved mother came to welcome me as a victor and it was hard to have to confess myself defeated. Somehow I felt I had failed her, and I determined then and there that I would not return a second time without having made the buffalo pay the penalty for the killing of her son.

That night I could not sleep, and the next morning the hunt started even earlier than before. It was an easy matter to reach the water-hole and pick up the new spoor from there and follow up the buffalo into the forest. This time I had made up my mind that I would shoot if only I saw so much as a square inch of him at which to aim.

After a wonderful exhibition of tracking on the part of my guide we eventually came upon the herd, and this time good fortune was on my side, for my bullet found its mark. As we followed up, after a few minutes' pause, we came upon the blood spoor which proved that although the herd had vanished the buffalo had been wounded. I continued in hot pursuit for about an hour, though fully conscious that I was taking big risks, for a wounded buffalo is prone to circle round and hunt the hunter.

By this time the sun was high in the heavens and soon we were tracking in great discomfort owing to the intensity of the heat. It was now several hours' journey from water, and in a part of the forest which was quite unknown to me.

Anxious lest I should get hurt, four of my men had taken upon themselves to follow me at a distance, and as we were slackening our pace these men came up to me and at once suggested that it was high time to give up the chase and return to camp. In the circumstances it seemed foolish to continue the pursuit, but I would not listen to them, for I was determined to get the buffalo.

We had now come to a small opening made by a wind-felled tree, and here we sat down to rest for a few minutes, all the time with ears strained for any sound of breaking twigs which might indicate the whereabouts of the buffalo. Just then a little bird burst into song. It seemed to me that he was singing "Embali kidogo, Embali kidogo" (a little farther on, a little farther on). Turning to my followers I whispered, "Do you hear what the little bird says? Embali kidogo, Embali kidogo. Shall we continue or return?"

These good fellows just looked hard at each other and, after a slight pause, by general consent decided to continue the chase. Once more we pushed on along the same old trail, with the sun all the time getting hotter and hotter.

Another hour passed and although I felt that we must now be very close to our prey my followers again began to talk of camp, one of them reminding me that we were travelling all the time in the opposite direction. For the second time we sat down to rest, and I quietly told them that whatever happened, for my part I was determined

to catch up with the wounded buffalo and finish him off. Secretly I was in a quandary, for I knew that unless I could persuade them to continue with me there would be very little chance of my ever being able to get back to camp. On the other hand, what seemed to me more important than anything else at the moment was success, for if I had returned unsuccessful, I felt that I should have lost my chance of making good with my friends, the forest dwellers. Not knowing the country, I realized my entire dependence upon the knowledge of these four bushmen, and yet I hardly dared to give them a direct order to continue when it might be a question of life or death for them.

While I was turning over the situation in my mind one of them picked up something from the ground, and I said, "What is that?" It was a tiny tick. The boy knew that it had been brushed off the buffalo's back by an overhanging branch. I placed it on the open palm of my hand and in a flash I had an inspiration. Looking into their faces I said, "Let the tick decide. If, when I place it on the ground, it walks in the direction of camp we will return but if it walks in the direction of the buffalo we will continue." With brightened faces all agreed that this was a very good idea, for it was "Shauri ya Mungo" (God's business) to decide.

I put the tick on the ground and all eyes were turned upon the oracle. The insect remained motionless for a moment and then, in the intense silence, it seemed that he deliberately made off in the direction taken by the

The Home of the Hunter

buffalo. Without another word each man rose to his feet and the chase was continued.

We had not gone very far when we realized that we were close upon our quarry. In the distance I heard a breaking twig and simultaneously a gentle pull at my sleeve made me look round cautiously. My hunter friend was staring back on our track where there was an ominous crashing of bush as the buffalo, who had circled round, suddenly turned and charged down upon us. Dropping on my knee I fired just in time. The shot staggered him, he swerved from his course and fell, but was instantly on his feet and with lowered head again dashed onwards towards me. There was not a moment to be lost for he was now almost on top of me. I had no time to take careful aim, but as good fortune would have it my shot found its mark and the great "King" of the herd lay dead at our feet.

The news of the kill spread far and wide in the mysterious wilderness way, and the forest dwellers hastened from their remotest fastnesses to meet the returning hunters. For my part I hastened back by the forest track and found the bereaved mother reclining with her back against the trunk of a giant tree, her hands folded in front of her in quiet contentment; with eyes glistening with tears of joy she welcomed us back from the chase. No mere words were spoken, but her "Thank you" was none the less eloquent for all that.

Chapter VII

KATOOTERO AND HIS HONEYBIRD

I HAVE related this adventure at length because the shooting of this buffalo was the means of finally establishing my friendship with these proud and elusive tribesmen. I gradually got to know them as intimately as any white men can know a black, and some of my happiest and most profitable days in forest work were spent with them.

These people are natural scouts; the most skilful man among them in the use of the bow and hunting is voted Chief. They are, generally speaking, very healthy people and have no recourse to medicines or witchcraft. They keep themselves fit by regulating their diet and taking strenuous exercise, which they get quite naturally in the course of their hunting. They do not cultivate the ground, but manage to vary their diet alternatively, by using meat and green food, wild fruits and nuts, tree seeds, roots of plants, wild yams, and a certain number of forest weeds which take the place of vegetables. Stinging nettles, when they can be found, are valued as a food. They are first boiled lightly and afterwards pounded to pulp. Honey takes the place of most sweets. This they collect from the hollow trees, of which a number are

allotted to each family. No family would think of trespassing on another's honey preserve. They prefer the honey in the comb, while the unhatched grubs at a certain stage of incubation are considered a great delicacy.

These forest folk live so close to nature that they make even the birds their allies. I have seen a honey bird lead a hunter to a hollow tree in which there is honey ready to be taken. It was fascinating to watch one of these little birds trying to get the attention of Katootero, the lad who used to hunt with me sometimes. We had been out for a hunt in the early morning and he was now resting, and I was taking this opportunity of discussing the prospect of an expedition that I was planning. Presently one of these tiny honey birds came up close to him and perched on the bough of a nearby tree, and started chirping noisily. He told me that this was one of his honey birds that was anxious to show him some hollow tree with honey for the taking.

To me it seemed perfectly ridiculous that this tiny bird should make such a fuss and be so insistent on Katootero following him. I later discovered that the honey birds know well to whom to go, for it is the unwritten law of the forest that each dweller has his own territory. Now that the honey bird had got the lad's attention, it flitted from bough to bough in the direction of the hollow tree, returning every now and again and perching quite close to the lad as if to make quite sure that he was following.

On leaving camp Katootero had picked up a piece of

burning wood and when next we encountered an old fallen tree that had rotted he collected several pieces of touch-wood and tied them round the smouldering stick with a small creeper cut from the forest. This delay seemed at first to agitate the little bird who made more fuss than ever. But once the hunter was ready again for the trail the honey bird flew on ahead. We did not have to go very far along the game track that we were following, for soon the little bird stopped and then flew into the denser part of the forest. About two hundred yards from the trail there was a clearing where a giant tree had fallen, thus letting in the sunlight through the canopy of the forest. To the north side of the clearing was a tall tree and looking upwards Katootero's sharp eyes immediately spotted a small hole from which bees were flying. They must have been from ninety to a hundred feet up, and to this height the boll of the tree went up clean, without a branch. For my part, I could only just see the position of the hole and it was only when the light caught the wings of the bees, as they flashed in and out of the hollow, that they were obvious to me.

It looked as though it was impossible to climb this tall tree and I waited to see what Katootero would do. He was looking around, and at the same time, every now and again, blowing on the touch-wood to get it well alight. Another way he had of getting a good smoke going was to swing it backwards and forwards. Suddenly it seemed as though he had an inspiration. About twenty-five feet away from the big tree was a tall thin one which could

be climbed. It was slender and whippy, and not more than twelve inches in diameter at breast height. Producing a long leather strap, or mukwa, Katootero rapidly climbed to the top, and when the tree started to sway with his weight, he swung it over in the direction of the big tree and seemed to be rapidly falling, but, with a quick motion, caught the main stem, held onto it, swung his mukwa around it and bound the two trees together.

He now mounted higher and presently reached a position just below the hole from which the bees were swarming. He next blew some smoke into the hollow, using the same means of subduing these insects as the modern bee-keeper. The only difference being that he hadn't bellows. He just puffed the smoke in with his breath. In a few minutes he plunged his hand into the hole and brought out a supply of honey in the comb, which he deposited in a leather bag swung from his shoulder. Having got as much as he wanted he cautiously climbed down to where he had tied the thinner tree and with great care released it. I held my breath when he kicked off from the big tree and slid down the slim one. It had been a remarkable performance, and I was glad that he came down without being damaged.

All this time the little bird had been waiting patiently, and now he rewarded it with a liberal supply of grubs in the comb. It is one of the fascinating facts of the forest, that these small honey birds live in symbiosis with the forest dwellers.

In regard to marriage customs my friends of the forest

are content with one wife. The usual dowry paid at the time of marriage is a pair of elephant tusks, which are not so much appreciated for their intrinsic value, but rather because they are a proof of the skill and bravery of the bridegroom. If a maiden is beautiful and skilful she will command a very large pair of tusks, and the young man who is fortunate enough to win her may have to hunt many months before he can find ivories worthy of her.

The girls and women wear their hair long and plaited. They are well set up, with boyish figures. They carry themselves gracefully when walking, and yet have the stride of a man. The woman is far more the comrade of her husband; she is treated as an equal and will often hunt with him, or take her turn to hunt alone, while the man will stay at home and mind the baby. It is even quite a common thing to find a brother and sister hunting together, for at an early age the equality of the sexes, both as regards responsibility and usefulness, is recognized, and the young lad of seventeen or eighteen does not regard it as infra dig to be seen about with his sister, whom he will often take with him on a long hunting trip.

When hunting together, the forest dwellers have a code of signs and sounds which closely resemble the notes of birds or the noises made by animals common in their particular part of the jungle. Their imitation of birds and animals in the forest is so accurate that it deceives the animal that they are tracking, and yet can be recognized by their clansmen. Once, for my special entertainment,

a forest dweller imitated the call of distress such as might be made by a female baboon so realistically that the "Old Man" of the troop rushed out into the clearing, right in front of us, prepared to defend his mate. When he realized that the cry had come from a mere man he gave grunts of anger which quickly changed to sounds of almost human laughter when the suspense was broken, and then he trundled off back into the bush.

These forest folk do not live in villages nor do they make permanent buildings. I have never seen more than four or five booths together in one place and these would belong to the same families. There is no defined path leading up to such a camp. A stranger might pass quite close to a group of shelters without realizing their existence, for great care is taken to obliterate any apparent road of access. It is usual for these shy forest people to return to their camps by different routes, so that they shall not betray their presence to strangers by leaving worn trails.

They live their lives with proud reserve in the great solitudes of the forest strictly secluded. They are highly intelligent, and while shy yet in the face of personal danger they are absolutely fearless.

The hunters have been the friends of the forest for their wants were meagre and easily satisfied without the necessity for tree destruction for making farms. A few dead sticks gathered from wind-fallen branches provide sufficient fuel. Within the spell of the forest they guard their own domain from all intruders, for no rival would

risk their poisoned arrows. Just as the honey preserves are defined, so in the jungle each dweller has his own territory. To the white man the origin and observance of this law are inexplicable except as the survival of the past, but to its power is due the preservation of many of the existing virgin forests.

These then are my friends the forest dwellers, and as I came to know them better they began to render me valuable assistance in forestry work; for a bond between us had been established and with a very little training I was able to use them as forest scouts. They entered enthusiastically into the work of collecting tree seeds, or any other useful work which I might suggest.

It is true that these primitive folk were not conscious at the time of the far reaching results of their work, but were merely doing what I asked in order to please me. To them it seemed just a whim of mine which, however, they were delighted to gratify. They could see no more profit for themselves in collecting seeds than in climbing a tree for a botanical specimen; but nevertheless in time they became some of the most enthusiastic Men of the Trees. By reason of their close association with nature they were well adapted to render me valuable assistance. They had an intimate knowledge of the forest and I was able to reach even the most inaccessible parts under their guidance and thus to carry out valuable survey work. This was not all, I was able through them to obtain many botanical specimens which were of considerable value, being used for identifying timbers of economic im-

Pay Day

portance. They were natural forest protectors and it was their great concern that the forest had already been invaded by neighbouring tribes and whole areas cut down and burnt. I was anxious, if possible, to prevent this destruction, and my forest friends were only too willing, on their part, to co-operate with me. Without their assistance it would have been impossible to have started many of the forest nurseries or to have raised the trees with which to plant abandoned farms. Their voluntary service was of particular value at the time because my department was sadly under-staffed and the demand for forest seeds was far beyond the supply available.

When the time came for me to leave their forests, I parted from them with real regret, a feeling which evidently was reciprocated by them as, for the first time in their lives, a number of them accompanied me on my way, leaving the shelter of their forest homes to bid me farewell.

Looking back upon the time spent with these children of nature, and having with deep interest entered into their joys and sorrows, I am convinced that in spite of their precarious existence in the jungle, they have managed to arrive at and retain many of the joys which we hold dear. For there in the heart of the forest they live their care-free lives and enjoy each other's comradeship, with sufficient food and shelter, even though their home may be but a primitive bower of leaves and branches.

Chapter VIII

HOW THE COCK BECAME KING OF THE BIRDS

MANY a night I have sat by my camp-fire to be entertained by old chiefs and head men. When I got to know their language it was a continual source of delight to me to listen to their folk-lore and nature stories. I always found that there was a subtle sense of humour underlying their presentation. They reminded me of my experiences with those delightful peasants of France, who live in the mountain villages along the Riviera. They invariably had a jest which they were always ready to share with their camp-fire friends. Some of the stories they told to me took as long as five nights to recite, for we always adjourned our gatherings before midnight, so as to turn in and be ready for an early start on the following day.

"How the cock became king of the birds," lasted for five nights. It started like this as most stories do. "Once upon a time all the birds of the forest quarrelled amongst themselves as to who should be the greatest. At length it was suggested that they should present themselves before the lord of the forest, whose special title I have now forgotten, to ask him to decide. This he agreed to do. First of all the eagle came and the lord of the forest said to the eagle, 'What have you got to say for yourself?' And

the eagle replied, 'I can fly higher and see farther than all the other birds. Surely I should be king of the birds.' And so the lord of the forest replied, 'I hear what you say. Stand to one side. Call your wife.' And so Mrs. Eagle came, and she spoke in the same language. And the lord of the forest replied, 'I hear what you say. Stand to one side.' Next came the Bird of Paradise, who said, 'I am more beautiful than all the other birds, surely I should be king of all.' Again the lord of the forest spoke as before, 'Stand to one side, call your wife.' And so the female Bird of Paradise presented herself and spoke in the same manner."

I must explain that the reason why the story took five nights to relate, is because my African friends paraded every known bird for judgment. Often I failed to recognize the bird about which they were speaking and then I would have to stop them, for I would not let them continue until it had been made clear to me about which bird they were speaking.

Finally, on the fifth night we came to the end of the story. "At last the cock came to the lord of the forest and he said, 'Cock-a-doo-del-do.' And the lord of the forest replied, 'I hear what you have said, stand to one side, call your wife.' And so the hen came, and she said, 'Tuk-tuk-tuk-tuk, tuk-tuk-tuk-tuk.' And the lord of the forest turned to the cock and addressed him, as follows, 'My friend, you have won the day. You are more clever than all the other birds of the forest, because you have taught your wife a different language from your

own. And, moreover, now that I have decided that you are king of the birds, by reason of this, all the birds of the forest will be your enemies and so you had better stay right here with me.' That is why it is, cocks and hens always stay with men."

At times I suspected that their stories subtly alluded to the relation of the black and white races. There were many inferences regarding the strong and the weak, or the strong and the cunning. Such was the story told of the fox and the wolf. At this length of time and writing from a different continent, I cannot recall how the quarrel started or why the wolf began chasing the fox. I only remember the story took a whole evening to relate because all the country through which they passed was described in minute detail. But the story ended like this. "At last the fox rushed into a great cavern where there was an overhanging rock. He was dead beat and put his front paws up against the rock and called, 'help, help, the rock is falling.' And the wolf, who was hard behind him, afraid of being crushed by what he thought was a falling rock, stood up on his hind legs and pressed against the rock with his fore feet as hard as he could, when the little fox doubled back and escaped, leaving the wolf expending all his energy in a futile task."

Again, there was a story of the elephant and the canary. It was never clear to me why they fell out or became such rivals. But it seemed that the canary generally got the better of the elephant and although the greatest animal of the jungle challenged the little bird on many an occa-

Trekking along the edge of the Forest

sion he was generally defeated in the end. Once the elephant said to the canary, "Look here, we must once and for all decide as to who is the greater," and so the canary agreed to submit to any suggestion which would prove the superiority of either of them. The elephant thereupon took the canary to the seashore, and said, "Whichever of us can drink the most water will be chief once and for all." And the canary agreed to compete in the contest and abide by the result. Just then the tide was coming in and the canary said to the elephant, "As you are the bigger you may begin to drink." So the elephant put his trunk into the water and started drinking for all he was worth. Presently he had to stop from sheer exhaustion for he felt that he must burst. The canary sang his praises and congratulated him for his marvellous performance and the elephant was carried away with pride.

When the tide was about to turn the canary went to the water to drink, dipped his beak into the sea and went sip, sip and waited. Again he walked forward and went sip, sip, and waited. And the elephant was perfectly amazed, and presently it seemed that the canary had been responsible for reducing the volume of water. When the tide had gone right out, the canary flew back to the elephant and said, "See, what I have done." And the elephant had to agree that the canary had won the contest.

Such stories made me think of the destiny of Europeans in Africa and it was through these proverbs that I began to get back of the black man's mind. Whatever may

have been the animating impulses which led to European colonization in Equatorial Africa, whether right or wrong, it cannot be questioned that the contact of Western civilization with the primitive methods of comparative savagery, has resulted in a state of flux and change for which the white man is responsible.

East Africa, and in fact the whole of the tropical area surrounding the Equator, may in time and with wise guidance, become capable of self-government; but that time has not yet come, and we who have aroused the tremors of what was once a nation, cannot hold ourselves guiltless until and unless, we have satisfied our own consciences and wisely assisted to their legitimate end, the aspirations of a people who are in the early stages of a great awakening.

That great Social Anthropologist, Professor Bronislaw Malinowski, has said, "The clash of Western culture with the older civilizations of mankind is the greatest drama that history has ever chronicled." Improved means of transportation and the advance of medical science have opened up vast opportunities for development. Many countries have been invaded by the white men in the past, to the detriment of the aborigines, but here in Africa the new invasion should result in a considerable increase of the population by reason of the advancement of medical science. Whereas in the past there was sufficient virgin soil in the forests to suffice for the sparse and shifting population, this is no longer the case, and the little that remains of the original forest must be conserved both in

the interests of agriculture and of climate. With the introduction of improved methods of agriculture, living in fixed localities will become possible, and village life will develop and and become better suited to modern conditions.

Africa is at last awakening from an age-long inertia, and there is a slow but sure movement in which one can already recognize the beginnings of a race consciousness amongst millions of people who have up till now been regarded as the most backward of mankind. But a closer study will show that these peoples, cut off from the rest of the world, have evolved a social system and moral code which is well suited to their requirements. The tendency with those of us of Western Civilization has been to regard them all as savages, because their attitude towards life has differed from our own. We have frequently been inclined to pity or patronize them, and have often endeavoured to impose upon them our brand of civilization without stopping to think for a moment whether it suited them in such a different environment, or it would alleviate their lot or make their life the happier for them. These countries have been invaded first by the explorer, then by the trader and missionary, followed in rapid succession by the administrator, and in some cases the settler, and we have taken upon ourselves great responsibilities which we like to call "the white man's burden."

All this has been accomplished so quickly that we have not had time to get to know or understand the African

point of view. Moreover, just as we were flattering ourselves that with our advent inter-tribal warfare had vanished, the European war obtruded itself into the heart of Africa and showed the Africans that what they had before regarded as war, was, in comparison, merely child's play. If we stop to think seriously and take this—the war factor—into consideration, we might find it difficult to decide whether from the African point of view the advantages of our presence have not up till now been outweighed by the disadvantages. It is even open to argument whether the many privileges of Western civilization justify our replacing simplicity by complexity, or endeavouring to substitute an industrial system which when all is said and done, is not always effective. A return to slavery would have less horrors for the African native than the treadmill routine of factory wage-slaves who, having sunk their individuality in a number or a letter, ring on and off as if they were merely cogs in the wheel of a great heartless machine.

It is difficult to estimate the damage to European prestige resulting from the Great War, in which many thousands of Africans came into conflict with each other. The exigencies of warfare necessitated the recruiting of carriers from the African Highlands, who were taken from their natural haunts and transplanted hundreds of miles away, where they fought in low-lying lands for which they were constitutionally unfitted. Again, soldiers were recruited from the tropical coast and subjected

to exposure in the cold Highlands; in both instances causing colossal loss of man power.

If the war had to be so far as Europe was concerned, it adds to the tragedy that it should not have been kept out of Africa; however, what has happened, has happened, and we must in consequence face profound and disturbing changes. No one can tell what the outcome may be. The fact is that Africa is awakening—but to what?

Chapter IX

FLOGGING A SHADOW

To understand we must first learn and this is ever true in relation to the dealings of the white man with the African. The success of The Men of the Trees may be largely attributed to the fact that this movement is based upon an idea which could be understood by the people. In the heart of Africa today, wherever its ideals have penetrated, it affords a valuable means of training in initiative and responsibility.

As life in Equatorial Africa becomes more settled, villages will spring up and village life become the order of the day. If we can only succeed in giving the African a new interest in home and village life, first perhaps in arousing his interest in tree-planting, we shall lead him to sink his old individual interests in the new ones which will soon become too precious to be jeopardized whenever his inclination turns to the old improvident ways. He will be industrious in spite of himself, as he recognizes himself as a part of the new order unfolded before him. Does not the solution of African problems lie in first aiding the African to adjust himself to this new order, beginning with home life, which must ever be the most important factor in the growth of any nation? The ideal picture of the African future is that of the native who

has created a home of which he is proud, combining with his fellows to improve the conditions of their small village. He will profit by the lectures and advice of trained farmers of his own race, who will cultivate demonstration crops in little groups of allotments throughout the reserves, and plant forest belts which will assure a continuous supply of wood for all purposes while protecting his harvests.

The Men of the Trees are paving the way for new methods of development, especially needed where tribal practice has become ineffective as is often the case where the contact with Europan civilization has been sudden. In many cases tribal uses have been broken down, and the African has had little time in which to adjust his vision to the changing order of things. His reaction has been something akin to that of a man, who, after being confined for a long time in a dark room, is suddenly brought out into the full glare of the mid-day sun where he is dazzled and blinded, and in consequence is bewildered. Dark as the room may have been, at any rate he was able to find his way about in it with little or no difficulty, by reason of being accustomed to that environment. The change is a devastating revolution in his domestic, social and spiritual life in that he leaves his home and tribal life to take a new religion. To him it is entirely destructive of everything that he has held near and dear. It is difficult for us to realize what a colossal upheaval it has been for him in every sphere of life. But whether we realize it or not, it still remains a fact that, through the centuries he

had evolved a social system which he regarded as being suited to his requirements. From what I have gathered in the course of conversation with many of the chiefs and elders, they have a sense of being hustled. They accept the idea that a change in the order of their life must come about, but at the same time they are reluctant to surrender everything connected with the past at once, and cling tenaciously to many old ideas. The popular attitude of the thinking men in the tribe was vividly brought before me on one occasion when I had invited a missionary to address a meeting of elders at my camp.

It was their custom on certain days to come and consult me regarding current affairs concerning the welfare of their people. Thus they came together this Sunday morning in the same spirit, prepared to consider seriously whatever matters were brought before them. In a few words I introduced the missionary, telling them that he had come to bring a good message for them all. The missionary, who could speak the local dialect fluently, then addressed his audience for about twenty minutes, ending up with an earnest appeal to them to send their sons and daughters to the Mission School. Immediately he had finished speaking, the eldest of the chiefs rose to his feet and said most courteously, "We thank you for your good words to which we have listened carefully. If you will excuse us we should like to withdraw and go into council on these very important matters." So saying, he bowed low in salute, and walked out, followed by the whole gathering. In a few

minutes they returned and again took their places, sitting down as before. Again the old chief rose to his feet and addressed the missionary and myself as follows, "Sirs, your words are good, this we do not doubt. But we are old men and would ask you to have patience with us. You are going too fast for us, old men as we are. Behold, what you say may be good for our sons, but not for us. For ourselves we will follow the beliefs of our fathers. What was good for them and for their fathers, must be good for us. As for our sons, it is for them to choose what they will do. If you wish them to go to your Missionary School and that is their desire, we will not hold them back, but one thing we pray you, spare us our daughters. If you take them away from us you break up our family life; when they have gone, there is nobody to tend the young children. We beg you to listen well to this request which we make, and of your mercy grant it."

That speech both sums up the attitude of the passing generation and opens before us the pressing problems of today.

In the case of the Arabs the great change that has come to them is the abolition of slavery. If the invasion of Western ideas amongst the Highland tribes of Africa created amazingly difficult problems, it came as a catastrophe to the coast Arabs who in many ways are the greatest sufferers from the new ideas and conditions. The Arabs were the aristocrats, dependent upon their slaves, without whom they were helpless. Although

many old slaves refused to forsake their masters, the temptation was too great for the majority who were attracted by the high wages paid in the rapidly developing Port of Mombasa. This growing centre of commerce drained dry almost all the labour from along the coast.

The change came about so quickly that the Arabs were incapable of adapting themselves to the new system of labour whereby slaves were being replaced by wage earners. Their fields and gardens became derelict and in many cases all that remained to them were a few palms which sufficed for a bare existence. In the town of Lamu on the East Coast, I have seen an old Arab living in the corner of one room in the ruin of his ancestral home, protected from the glare of the sun or tropical downpour only by a makouti mat made of palm leaves.

Although on account of his inability to adapt himself, the coast Arab is unable to retain his old position in the new order of affairs, his philosophical nature seems to stand him in good stead and prevent him from becoming embittered. He modestly retires from public life and lives quietly, usually spending much time in devotions, for they are devout followers of the Prophet.

On looking back on my days spent on the Coast, I consider myself fortunate in having had the privilege of knowing intimately some of these older Arabs. They have much charm, and are always courteous and hospitable, even though all they may have to give the trav-

eller in the shape of hospitality is a M'dafu, or cocoanut. Indeed, on a hot day after a long tramp in the sun, nothing could be more acceptable than a long drink from a young cocoanut. In spite of all that they have suffered in recent years, they seem to harbour little or no resentment, and even if they feel it, they do not show it. It is only by their proverbs or stories that one can get a glimpse into the thoughts at the back of their mind.

As an example of a story with proverbial significance, I will endeavour to recite one told to me at Mambrui. The following is a literal translation as nearly as I can render it.

"Once upon a time there lived a rich man and a poor man in the same village. The rich man was very, very rich, and the poor man was very, very poor. It was the custom of the rich man to partake of his meals on the verandah of his house, and the poor man having nothing to eat, would come and sit on the side of the rich man's table some distance away, but near enough to be able to inhale the scent of the viands. He enjoyed the aroma and, not having a morsel to eat, drew in his girdle, returned to his poor abode, feeling as though he had partaken of the sumptuous repast. This continued for several days, but finally the rich man became enraged and took the poor man before the Judge, asking him to administer suitable punishment. The Judge held court and tried the poor man and found him guilty of having stolen the aroma of the viands wafted by the

breeze from the rich man's table. And the Judge called for his tallest and strongest askari and ordered him to make ready the great whip with many tails, and take the prisoner before the Court House and to flog it with twenty-five mighty strokes when the sun cast the prisoner's shadow on the ground.

"The same day, towards four o'clock, a crowd gathered before the Court House, and in front of all was the rich man who was greedy to see the punishment inflicted. Exactly at four o'clock the prisoner was brought forth, followed by the askari carrying the great whip with many tails, and as the prisoner stood, the sun cast his shadow on the ground and the askari raised his mighty whip with the many thongs in the air, and brought it down with a crash on the ground by the side of the poor man. Again he raised his whip, and again he brought it down with equal strength, and so he did twenty-five times. The rich man, standing near by the poor man, was choked with the dust raised from the ground by the crashing thongs, and he went off to the Judge in a great rage, choking all the time with the dust which he had swallowed, and said to him, 'See here, I called you to punish this man and you are making a fool of me; your askari is merely beating the ground and making a great dust.' And the Judge said to the rich man, 'Did this poor man steal your food?' The rich man replied, 'No, but he stole the scent of my food.' And the Judge said, 'Very well. I do not flog him. I flog his shadow.' "

Chapter X

THE BUNDI SPEAKS

In my experience I have found that the uncomplaining poverty is the result of their philosophy. I have never once found them embittered in spite of the hard times with which they have had to contend. I came across an Arab town on the borders of Tanganyika Territory, which, during the war, was completely destroyed by the two invading armies. On the side of this Arab village there had been many a battle. At one time it had been occupied by the British, then it was captured by the Germans. Counter attacks there were and many a ding-dong battle razed this town to the ground. After the war it was impossible to gather sufficient material out of the débris to build new houses. As the result of the war, over two hundred and fifty inhabitants were homeless. Being penniless for three years, they lived as best they could, amidst the ruins of their town, all the time seeking to obtain sanction to cut forest material for the rebuilding of their homes. Their helplessness in this delay was a test even of their great philosophy. But before the strain reached the breaking point and disaffection spread, the forestry officer in this district was fortunate in hearing from the Provincial Commissioner

the facts of their distress. It was important to act immediately not only for human relief, but for the establishment of better understanding. There was no shortage in the neighbourhood, for everyone knew that quantities of wood were being cut from their mangrove swamps and exported to India.

It seemed only natural that the urgent needs of those in the adjacent towns should be first supplied. He investigated the case of each family and issued permits according to their requirements, and thus a condition of growing despair among these helpless war victims was changed into hopeful activity.

The vital importance of a capacity for perception of local requirements and the power for immediate action on the part of the man on the spot cannot be overestimated.

Side by side with the Arabs, just back of the coast line of East Africa, is the Nika, or desert country. To the inhabitants of this territory before the advent of the white man, life was a continual struggle for existence. While the women tilled the fields, the men played their part in foraging raids, for their time was continuously occupied in war or hunting. Under the new régime the tribes are practically immune from the attack of hostile neighbours, and it is no longer the necessity to spend time in sharpening spears and making shields. There is a serious attempt being made today to substitute the plough for the spear and it is good that this should be done, however dull the process may seem to

young warriors. But the common round and daily task in actual practice does not furnish all they ask. What the African can use is vocational training. He needs the knowledge that Western civilization can give him to enable him to turn to full account the marvellous potential wealth of his land.

In the past the women tilled the soil under the protection of their men folk who were generally there except when they were engaged in counter raids upon their neighbours. But today, slowly the warrior class, born to fighting and members of a military caste are being led to adapt themselves to modern agriculture. A new spirit is being created by practical training and their natural gifts are being developed in a constructive direction.

This problem of adjustment is not as difficult as it seems, for they can soon be taught that the successful agriculturist of the new order is truly a warrior who fights daily. He must learn to apply the tactics of war to defeat the enemies of his crops. He must marshal his forces to save his harvests; he must gather ammunition for the seeding of his farm; he must collect an armoury of tools to develop his possessions to advantage; he must fortify himself against the besieging drought. He must again prepare outlets for attacks by flood, sharpen his ploughshares in place of his spears, and shield his produce at all seasons of the year.

Though the transition from the warrior to the agriculturist has not yet been completely established, on

account of lack of local training, the change is as vital a necessity for the welfare of the indigenous tribesmen as for that of the incoming settler.

From superficial knowledge of the problem, it would appear that some form of compulsion by means of taxation is necessary before such a race could be induced to labour productively and provide the necessary quota of raw material for the world markets. But a more thorough examination of the question will, I am convinced, reveal the fact that the present system by means of which labour is recruited must be modified, rather than intensified, if we are to get lasting results.

The African is very loyal and easily led by those who win his confidence. He is prepared to work, but we must be equally prepared to give him a fair share of the profits of his labour. If we deal honestly with him—if we give him what we should—the scientific knowledge that we have been fortunate enough to gain and he has not—if we teach him certain systems of organization which he badly needs, there will certainly be encouraging results. In his life on the land lies the basis of his sound development and we must show him, by the rotation of crops, the use of manures and other methods, how he can increase his resources abundantly and economically. If he does this with our assistance, he will be very glad to share with us the wealth produced, in exchange for the services we render.

Co-operation for mutual benefit, and, over and above that, the spirit of willing service for the public good

Some Camp Visitors

and the good of posterity, are conceptions to which the African is quick to respond if they are put before him in the right way, that is, in a way which he can understand.

One day, while I was camping on the edge of the Nika desert, I held a Baraza. Chiefs came from distant villages, because I wanted to talk to them about tree-planting and show them how they could build a forest barrier and thus stop the desiccation and the advance of the desert.

When evening came and they had had their meal, they wanted to hear more. As I was sitting in front of my tent they appeared out of the darkness, one by one, and gathered about my camp fire. For a long time no word was spoken beyond the ordinary greeting, and as I finished my coffee, I passed around the native snuff which I kept for their harmless delectation.

The snuff box was in the form of an ebony owl, and having gone the round of all the chiefs it was returned to its usual place on my table. This little ebony owl had come to be regarded as my camp mascot, and there he sat looking out towards the night shadows and my audience.

"Do you know who that is?" I questioned, placing my finger on the head of the owl. They at once assented. Of course, they all knew the Bundi, the wise old bird of the forest. "Do you know why he is so wise?" I next enquired. "It is because he has big eyes and can see all that is happening; he has big ears and can hear all that

is going on around him, and only a little mouth so that he need not speak foolishness."

I translated for them the rhyme about the owl

Kuluikua na n'dege m'zee
Aliyeka katiga tegaa
Kwa zuidee aliona
Kwa upungufu alisema
Kwa zuidee alisema
Kwa upungufu alisikize
Huyu twa mafanu na huyu n'dege
merevu m'zee

This is my best Kinika for

"There was an old bird who sat in an oak,
The more he saw the less he spoke,
The less he spoke the more he heard,
So take a tip from the wise old bird."

I went on to tell them if they would take a lesson from the wise old bird they would see and hear more and keep silent. This caused great merriment and much nudging of elbows. Just then a gentle breeze sprung up and began to rustle the leaves of two large trees in front of my tent and I said, "Listen, do you hear those two trees? They are talking to each other. If the wise old bird could only speak now, he would be able to tell us what they are saying. He might inform us that the

Wembi[1] was saying to the M'gandi,[2] "What a fine tree am I. See how I sheltered the Wazee[3] from the Kili[4] sun, and kept them cool under the shade of my branches." "Ah, that's nothing," replied the M'Gandi. "Didn't you see whom I was protecting from the Kali sun? It was no other than the Bwan ya Miti M'kubwe." [5]

"All honour be to you," said the Wembi, "but all the time he was sitting under the shade of your branches he was telling the Wazee to plant Wembi, for," said he, 'Wembi's heart is good for timber. Wembi's arms are good for charcoal. Wembi's fruit is good for food. Plant Wembi. Plant Wembi."

"Yes," said the M'gandi. "That's true, but you are only a stranger in this land; you came here but yesterday. You were only brought here by the Arabs, whereas I've been here from very long ago."

"True," said the Wembi, "But I was brought here because I was of use to man; because my heart was good for timber; because my arms were good for charcoal and because my fruit was good for food, whereas you are but a parasite; you climb up other good trees and hug them to death, and you are neither good for timber, fruit nor food."

"Softly, softly," said the M'gandi. "Remember, my young friend, that in the old days before the coming

[1] Wembi—mango.
[2] M'gandi—parasitic fig.
[3] Wazee—elders.
[4] Kali—fierce.
[5] Buan ya Miti M'kubwe—Great white chief of the forest.

of the white man, when the people of this village fought with the people of that village yonder, whenever peace was made, it was made under the shade of my branches."

At this point the Chiefs looked up from the ebony owl and eagerly questioned me. "Does the Bundi really tell you all that? For all you say is true. Tell us more." Because I was speaking what they knew to be true I won their confidence and was enabled at this stage to continue my forest instruction and drive home the lesson.

We talked long into the night, for they seemed loath to part and ever anxious to hear more. Months later I returned to find how well the story of the Bundi had been learned, for without further supervision they had voluntarily planted many Wembis in the abandoned farms with lasting benefit to their country.

Chapter XI

THE GATEWAY TO KENYA

When I left the Nika country I came down the Coast by dhow and encountered a terrific storm. Our cockle-shell of a boat was driven before the wind and in spite of the efforts of my able Arab seamen, we were driven far off our course. For two days and nights we battled with the elements and I shall always recall with what delight and genuine relief I arrived at Mombasa, the gateway to Kenya.

It must not be imagined that Mombasa was a small village on a mud flat with no history. On the contrary, it was a port of repute with a record then dating back for more than four hundred years. It had a walled fort, which frequently changed hands, and had been subject to the attacks of many invaders. There had already been super-class and secondly a Portuguese domination. The constant clash between these had left the island a vivid history of revolt and carnage. In spite of this there had been an enormous trade in slaves running into many millions of dollars, chiefly by dhow, with the Persian Gulf and the Malabar Coast which was materially restricted by the abolition of this traffic.

The history of the coast of East Africa goes back long

before the Christian era, though little was known of the interior until well into the Nineteenth Century. Vasco da Gama visited Mozambique, Mombasa and Milindini in 1498, being the first European to sail in those waters, after which a long period of strife ensued between Portuguese and Arabs.

The British first appeared on the scene in 1798 followed by Americans, who arranged a friendly commercial treaty with the ruler of Zanzibar in 1833.

The hoisting of the British Flag at Mombasa, just over a century ago, affords an attractive story by reason of the fact that it was first flown by the inhabitants without permission from the British Government, surely a very rare circumstance in the history of any nation.

In 1833 there was published a narrative of voyages to explore the shores of Africa, Arabia and Madagascar, performed in His Majesty's ships "Levan" and "Barracouta" under the direction of Captain Alexander T. E. Vidal, and W. Fitzwilliam Owen. In this interesting publication were extracts of the diary of Lieutenant Boteler of the "Barracouta." With the kind assistance of the Admiralty Librarian in London and the Master of the Rolls, I have been able to look up the story as told in this old diary. As I saw the musty looking bundle being unwound, I was conscious of a sudden thrill of emotion. Carefully the knots were untied and the outer wrappings removed, and then in the centre of the bundle was disclosed the actual log of the Master of the "Barracouta." It was with keen interest that I turned

over the pages until I came to an entry recording the arrival of the "Barracouta" at Mombasa on 3rd December 1823.

At 3.30 abreast of Mombasa. Hauled to the wind, sent a boat in to sound . . . at 4 brought up in 11 fathoms. Showed our colours . . . was answered by the fort on shore. They hoisted a red flag; came off a boat from the shore and sent two boats to examine close in shore. As the boats returned up and down Royal yards and struck the masts.

4th December 1823.

Light airs with lightning at daylight—sent the Ramsden and Portia with Lieut. Boteler to survey the reefs. Later came on board, some of the grandees from the Town, bringing with them some fruit and two sheep.

"British prestige had already reached Mombasa," says Lieut. Boteler in his diary, and the inhabitants welcomed the white men who "although differing so widely in religion and customs yet ever protected the oppressed and respected the shrines of liberty."

The probability is that when Lieut. Boteler was sent on shore by his Captain he so endeared himself to the natives by his straightforwardness and uprightness of character, that when he departed they said, "This is a good man, his flag must be a good flag; we must hoist

it." Before the British ships departed the Sheikh, or Sultan, begged Captain Vidal to authorize them to hoist the British Flag and place the town and territory in the hands of his Britannic Majesty. For some unknown reason this request was not granted, and on the 7th December 1823, the two ships sailed away. Whether some of the local inhabitants persuaded the crew to sell them a flag, or whether they made one or stole it, is unknown, but, mystery of mysteries, on the return voyage the British colours were found to be flying on the Fort of Mombasa. Captain Owen went on shore and the Arabs acknowledged having hoisted the British colours without authority, but unanimously craved permission to place the whole country under the protection of the British Nation. It is said that Captain Owen informed them that provided they would assent to the abolition of the Slave Trade, he would transmit their proposal to his Government for their decision, and that he would have no objection to holding the place in the meantime.

"To these conditions," states the historian, "they readily assented, and made a formal cession of their island Pamba, and the country reaching from Malindi to Pangani." The Third Lieutenant, Mr. John James Reitz, was made Commandant of Mombasa.

Such is the story, as we may be tolerably certain that no sooner had His Majesty's Ships "Barracouta" and "Levan" sailed from the Port of Mombasa on 7th December 1823 than the British Flag was hoisted.

There was a notable gathering inspired by a suggestion

from His Excellency, the late Sir Robert Coryndon, to celebrate the centenary of this voluntary hoisting of the Flag on 12th December 1923. Over sixty people, representing every interest in the Colony, met in London at luncheon in a quiet little restaurant in Jermyn Street. The occasion is memorable for the fact that this was probably the first time in the history of the Colony that so large a number of people representing widely varying interests, forgetting politics and their differences of opinion, came together in a disinterested way to commemorate a purely historical occasion.

But to return to the history of Mombasa. It was not for another fifty years that the British India Steam Navigation Company established regular communication with these parts. In 1887 the Sheikh Sayyid Bargash granted to the Imperial British East Africa Association, a concession of his mainland possessions between Imba and Kipini. This Company, whose Chairman was William MacKinnon, was largely animated by humane motives and a desire to enforce the law against slave trading. This Company also started industrial missions, built roads and administered justice, and in 1894 surrendered its charter to the Imperial Government who assumed the Protectorate when Sir Arthur Hardinge was appointed Commissioner and Consul General.

There was steady progress in the development of government at Mombasa and in 1896 the construction of the Uganda Railway was started. Four years later Sir Charles Elliot succeeded Sir. A. Hardinge as Commis-

sioner. The close of the South African War brought a large influx of settlers, and in 1903 the Planters' and Farmers' Association was formed. This organization represented all the settlers, who had at that time no voice in the administration.

On 1st April 1905 the administration of the Protectorate was transferred from the Foreign Office to the Colonial Office, and settlement steadily progressed.

On his death, Sir Donald Stewart was succeeded by Sir J. Hayes Sadler, and two years later a Legislative Council was constituted on which the settlers were represented by nomination, though the Government still retained a permanent working majority of officials, and the Commissioner was henceforth styled Governor. The first to assume this position was Sir Percy Girouard, under whose régime the Protectorate showed decided indication of increased prosperity.

In 1910 Lord Delamere, a prominent settler, coordinated the settlers' interests in the Convention of Associations. This body, to which all local Associations send delegates, meets twice a year.

To the next Governor, Sir Henry Belfield, fell the difficult period of the War, and during this time there was a general set-back to farming.

The Armistice was the starting point of a new era of reconstruction, and to Sir Charles Bowering, when Acting Governor, fell the task of dealing with the difficulty which had arisen over the currency. It was under the rule of Sir Edward Northey that the Highland area was

formally annexed and proclaimed a Colony, and the official designation of the whole Territory became Kenya Colony and Protectorate.

In August 1922 Sir Robert Coryndon was appointed Governor of Kenya Colony and High Commissioner of the Zanzibar Protectorate in succession to Sir Edward Northey. His task in Kenya was not an easy one, for he was immediately confronted with the serious problem of the conflicting Indian and European claims, while having to keep in mind all the time the interests of the Native African on whose behalf he was constantly exerting himself. Besides being an exceptionally able official, especially in native administration, he was a keen sportsman and a beautiful rifle shot. His wide experience in different parts of East and South Africa had well equipped him for his arduous task. His sudden death in 1925 was a great loss to the Colony. He was mourned by every section of the community who well knew that he always put their interests before his own. He was succeeded by Sir Edward Grigg.

Even according to present day standards Mombasa is regarded as one of the most marvellous harbours of the world. The Island is only just over 3,000 acres in extent, but is the neck of the bottle through which everything must pass which is required by the hinterland of some 500,000 square miles, with a native population of perhaps 10,000,000 and is today served by a railway system of about 1,250 miles together with a system of lake vessels numbering about a dozen craft of various sizes.

It would be difficult to find another port in the whole of British territory which is the sole link with the outside world of a hinterland as fertile, populous and potentially wealthy as our sphere of influence in Eastern Africa. Added to all this it is famous for its own natural resources, depth of water, freedom from contrary winds, and, though land-locked, it is nevertheless accessible at all periods of the tide.

This, then, is the Gateway to Kenya, and the outlet of all the trade for the countries that surround the Victoria and Albert Lakes and the headwaters of the Nile. The commerce to and from the races that inhabit these countries and that must pass through the Port of Mombasa, is obviously impossible to foretell. Those of us who live in the old world, are becoming more and more dependent upon the wonderful land of Africa for our many wants and at the same time the inhabitants of these vast tracts are developing an increasing need for more imports from the old world. In proportion to the increase of trade so will the Port develop, a challenge to industry and adventure.

Chapter XII

THE LURE OF COFFEE

To the man or woman who dreams of a life in the open, unfettered by the many drawbacks of modern civilization, Kenya unfolds herself as a veritable fairyland.

How can I describe this country to those who have never seen it?—to those who look at things through eyes accustomed only to Northern scenery? Try to conjure up in your imagination the scene which opens out before you as the train wends its leisurely way from Mombasa ever upwards towards the delectable highlands of this last and best land of promise.

The gari ya moshi, steam engine, has at length arrived at the crest of the table-lands and with half a dozen long drawn out puffs the train, with one great effort, straightens itself out to speed across the Athi Plains on the last lap to Nairobi. If in your mind you would contrive to paint this ideal picture you must think of the largest and most beautiful pleasure park you have ever seen, magnify it an hundredfold and populate it with every kind of wild animal life you can imagine.

Those who have been so fortunate as to see Major Dugmore's "Wonderland of Big Game" or Mr. Martin

Johnson's delightful films of hunting in Kenya, may have gained a very good impression of what big game looks like close up. These hunters with the camera have made thousands of folk on five continents intimate with these fascinating *people of the plains*. Those who have seen them on their way to drink or grazing in some shady nook unconscious of the camera man behind his *blind* [1] and those familiar with these remarkable film productions have already a very good notion of the animals and their ways. But the picture is incomplete without its setting. One must sense the very atmosphere of the plains, with African sunrise and sunset. To complete it all one must take in the whole perspective,—the distant forest and the lone mountain, with its foothills shrouded in mist, while high about the cloudy film the great white snow cap of Mount Kenya glistens in the sun.

Forgetting the noisy, shaking train, let your eyes wander over this great expanse and then return to the near view—the "close-up" wild life—bunches of plump zebras with shining coats tautly sleek; hundreds of "Tommy," those delightful little gazelles who, forever on the alert, never stop wagging their tiny tails. A little farther on you will see herds of kongoni, loping along in their comical "dot-and-carry-one" gait, while every now and again an old buck will stop to stare laconically at the, by now, familiar train. Is he suspiciously spotting

[1] N. B. "Blind," a screen of bushes behind which the cinematographer hides himself and camera for the purpose of recording "close-ups."

the old-time "Sportsman" with guns on rack? If fortunate you may see some lions on the hunt slowly stalking or a cheetah perhaps standing agaze while a stately giraffe is nibbling the top of a thorn bush, and aloof from the rest, the ostriches strut about in dignified detachment. Other things too numerous to mention will compel your attention for one brief moment and then pass out of sight. You will be fascinated, spellbound, and perhaps a great longing will come over you to become better acquainted with all this wonderful wild life. You will begin to dream of days of "Safari"—of the camera hunts and the sport that awaits you, when suddenly you are rudely awakened from your day dreams, for the train is jolting into a station and before you have time to realize it you have arrived at Nairobi, the capital city of the country of your dreams.

But Kenya is not merely a pioneer's hunting ground. It has important towns and district centres. Nairobi, the capital, is a busy commercial centre, with a widespread residential area. The early explorers of East Africa little dreamt of a colony on the Equator where the European could settle and engage in profitable agricultural pursuits, and at the same time enjoy the ordinary amenities of English country life. Kenya is to-day an established Colonial settlement in the fullest sense of the word. Improved means of communication have opened up a territory potentially wealthy, with a vast native population who are generally amenable to reason, and readily take to the ways of the white men. Side by side with the white

man's development of the country there has been a considerable advance in the productivity of the native reserves, which come within the well known Highlands, surrounded by the mountain groups of Kenya, Kilimanjaro and Elgon.

The basis of white settlement is agriculture. Kenya's soils are among the richest in the world; its coffee is now world-renowned, being used on every continent. The would-be settler has a varied choice of agricultural operations, but he will find that coffee planting, by reason of its perpetual interest, stands out as one of the most attractive and entrancing of enterprises.

The cult of coffee is an ancient one, and in origin is African. The story is told of a religious order which, about the fourth century, fleeing from persecution in Egypt, settled in Southern Abyssinia. There, in the Highlands, they carried on their good work, introducing better methods of agriculture, and demonstrating by their practical industry the fruits of the gospel which they preached. One day, while herding a flock of goats, one of the brethren was somewhat surprised and alarmed to find a number of his charges frisking about in a manner which was abnormal even for goats. With visions of devil-possession, and many other dire calamities, he crossed himself and tried the efficacy of prayer, assuredly believing that before nightfall the bewitched flock would recover. By evensong, however, the goats were, if anything, even more lively, refusing to go to rest in their fold. For days the untoward behaviour of the monk's

Little Friends of the Forest Scouts

charges occasioned much perturbation of spirit in spite of prayer and exorcisms.

The Prior, who had attained the position of head of the community not only as the result of his wisdom and godliness, but by reason of his practical ability, hearing of their behaviour from the perturbed brother, determined, at last, to herd the goats himself. Observing carefully the herbage on which they fed, he finally suspected that their liveliness and sleeplessness might be due to the consumption of the leaves of a beautiful green bush. Taking some of the berries of this shrub, he chewed them himself, ascertaining as a result of his experiment, that their properties conveyed a sense of exhilaration and well-being. Not only so, but during the long night watches of his religious exercises, he found himself much more capable of keeping awake, and with a clearer mental vision than usual. Thus was the use of coffee made known to mankind by the alluring attraction that it had for goats.

The coffee plant is indigenous to Africa. I have often found it growing in the forest, between the altitudes of five and six thousand feet. It has been found that the cultivated coffee grows best at from four to six thousand feet where the nights are always cool and the days are never unpleasantly hot. At such altitudes the white man can go about his daily work clad in ordinary clothes all the year round. For the man who loves open life there is perhaps no profession more attractive than the cult of coffee.

Kenya coffee is shipped to America, Asia, Australia and Europe, and the annual export has grown from a few hundredweight to many thousand tons. It fetches a higher price on the market than any other, owing to its superiority of flavour. Little is sold unadulterated, for it is mostly used to blend with other varieties. In the trade it is known as a liqueur coffee.

The present price of land in Kenya compares favorably with that of similar quality and capacity in other parts of the world. Anyone who feels drawn to living in Kenya Colony and can afford an experimental visit, would find that a year could be spent very advantageously with a coffee planter acquiring practical knowledge of the conditions before launching out to plant on his own account.

I have estimated that the minimum amount of capital required to engage in coffee planting with a reasonable hope of success is about $25,000. From this investment, after five years, a man who is prepared to settle on his estate and look after its development, might anticipate a net income of about $5,000 per annum.

The coffee planter must always remember that it is essential to be able to afford to wait. The man with $25,000 to invest should have, at the very least, an income of, say, $2,000 per annum, to cover living expenses during the years in which the plantation is being brought into profitable bearing. If the plantation is within twenty miles of a railway, catch crops such as maize, can be grown to help to tide over the early years.

Reputed coffee land, in its virgin state, in districts remote from the railway can be bought in the open market for twenty-five dollars per acre. It might be found a better investment to pay a little more for the land and keep nearer the railway because distance from the railway does not materially affect coffee. This crop is so valuable that it can stand the expense of transportation over a long distance and a small estate man with a capital of $25,000 who does not mind going off "into the blue" reaps many advantages by so doing, which are not always apparent on the surface. In the first place, he can procure cheaper labour, therefore his clearing and planting will not cost him so much; that fact may compensate him for the extra cost of transport. Besides, he can live on his gun and dispense with his butcher's bill, and, taken all round, his expenses will be much lower than if he were living within ten miles of the Nairobi clubs.

Let us suppose that the settler buys one hundred and fifty acres at twenty-five dollars an acre, provides himself with some stock, a cultivator, cart, plough, implements and tools, clears and plants twenty acres, and constructs temporary buildings; by the end of the first year he will have invested about seventy-five hundred dollars. In the second year he will plant another twenty acres and in other ways spend about one thousand two hundred and fifty dollars on the estate. In the third year he will again plant twenty acres, carry out repairs and renewals in the Plantation, and begin to see the fruits of

his labours in about a ton of coffee from the first twenty acres planted. His expenses will again be about the same. In the fourth year he will plant twenty acres, purchase and erect a pulper and vats, provide himself with trays and mats, prepare and transport about four-and-a-half tons of coffee, and in all spend about twenty-five hundred dollars. In the fifth year again twenty new acres will be planted, and it may be found necessary to purchase another wagon and extra oxen, and more implements and tools.

He may now erect a small permanent house in the slack season. He will transport and market about fifteen tons of coffee, and his expenses this year will be about forty-seven hundred. From the sixth year onwards he will reasonably expect to make a steadily increasing income, up to, say, five thousand dollars, when the one hundred acres of coffee will have come to full bearing. The value of such an estate at the beginning of the sixth year would be about thirty-five thousand.

For my part I have found the country full of fascination and variety. It is fertile in the extreme, capable of producing all kinds of fruit. In one garden I counted thirty different kinds of fruit, fifteen of which were bearing simultaneously.

The policy of past governments has been to encourage white settlement and accordingly certain areas have been set aside entirely for white occupation. Today many Americans and Europeans are availing themselves

of this land. Such land is quite distinct from the native reserves.

There is no reason why the interests of the white settler should conflict in any way with those of the indigenous population; indeed the prosperity of the one largely depends upon the other. Every farm which is developed whether in the white or native areas is for the good of the whole community. The newcomers who have made the Highlands their home are determined to develop this new country along the lines of the best colonization.

Generally speaking there is little difficulty in obtaining sufficient native labour. I would always advocate that careful study be made of the local dialects, although Ki-swahili is the *lingua franca* of the country and will generally suffice to see one through. When shortage of labour is experienced it is generally due to misunderstanding and ignorance of local dialects. All have not the same gift for dealing with natives. To understand the natives we must first learn their language. Those who fail to do so are undoubtedly greatly handicapped in the labour market.

This country always seems to exercise a tremendous attraction for those who have taken part in its life. If occasion arises to return to the homeland, one leaves with regret, and is always glad to return to this land of sunshine. Kenya welcomes those who go out prepared to co-operate with the early settlers who, as the result

of a long struggle, are at last beginning to reap their reward, having built the foundations of a colony which in their dreams fulfils all their desire of what a home may be without many of the increasing disadvantages of life in Western civilization.

Chapter XIII

MWININYAGA, THE GREAT WHITE SPIRIT

THE old conception of Africa as the great dark Continent peopled with savages "dwelling in the shadow of death" is an extravagantly false conception. Nevertheless it is a conception which too often still exists. It may be that in the past we have failed to understand because we have not taken pains to study things from the African point of view. We have had too many Stanleys and too few Livingstones; too many men of the dashing explorer type ready to cater for a sensational public, and too few quietly observant scientists and practical students, intent upon knowing the country, its people, and their religious and social outlook upon life.

The simple inhabitants of the Highlands of Kenya, some of whose religious beliefs I will now tell you, live very close to nature, and if you want to understand them it is absolutely necessary to put yourself in their place and try to regard things from their point of view.

Little is known to us of the origin of these peoples and still less of the source of their religious beliefs, and since invasion of Western ideas it is difficult for the student to separate the indigenous beliefs from the ex-

otic. In recent years thousands of white men have settled in their midst, bringing with them an entirely different brand of civilization. A few decades ago they were living in primitive simplicity, when suddenly Western civilization burst upon them. The consequent change of affairs has been so rapid that they have not had time to adjust their vision. There was no intervening half-light but the dawn of Western ideas burst as suddenly as their own tropic sunrise. Quickly a condition of affairs was thrust upon them which speeded up their evolution very rapidly.

It is only the casual observer who would fail to see that the change is only on the surface. Side by side with the new state of affairs, old tribal customs and beliefs still hold sway. The coming of the automobile has not usurped the authority of the witch doctor. Sacred trees and a belief in ancestral spirits still play a very great part in their lives. They attribute the existence of the world to the great spirit god N'gai, and him they worship. But their religion is very simple and matter-of-fact, and probably there is a tendency for those of us who have been brought up in countries where the teaching of religion has been elaborated, to read into ceremonies as practiced by these people possible meanings which actually do not exist. We must not forget that these are extremely primitive people, with a very simple and practical outlook upon life. They have no literature, but stories of the past have been handed down from father to son, and form a rich store of folk lore.

Often when the day's work is done, the old men will call their sons together round the camp fire and relate tales of the past in story or song. Most of the stories would appear to be purely secular, but they often have a hidden meaning and are intended to convey a moral lesson. This mixture of the secular and the religious is so prevalent that it is not easy to say where one begins and the other ends. It is equally difficult for us to discriminate between their religious and social customs, so closely are these interwoven. The ceremony of Ko-chi-a-ru-o-ke-ri, meaning literally "being born again," sounds as if it might have purely a religious significance and might be thus easily misinterpreted, but, in reality, it is a secular custom which consists in killing a goat and going through a certain ceremonial that entitles the participant to be admitted into the family.

I will now describe what happens at the ceremony. When the children become old enough to mind the goats, which they do at a very early age, perhaps four or five years, this ceremony takes place. The mother sitting on the ground sets her child between her knees, imitating the sounds of distress which a woman might make when giving birth to a child, whereupon the child is handed forth and is presented with symbolic ornaments, and henceforth has become a member of the family. Without being born again, the young Kikuyu is not in a position to be admitted to the later ceremony of circumcision, which is the outward sign of admittance to the tribe. Great stress is laid on this ceremony also,

and both male and female are operated upon some time between the ages of ten and fifteen. Such later ceremonies are not only of secular but religious significance.

Indeed a close knowledge of the A-Kikuyu people shows that they are deeply religious. They believe, as I have shown, in the existence of N'gai—the Great White Spirit who dwells beyond the snows of Mount Kenya. Towering over their country this lofty mountain which in that clear atmosphere is visible from a great distance is the Great Controller of their destinies. Enshrined in its heights is the Great White Spirit God, which always has been and ever will be, sees, hears and knows all. He is addressed in solemn sacrifice as "Mwininyaga" or Possessor of Whiteness, while the mountain where he dwells is called "Kirinyaga," meaning Place of Whiteness. The sun, the rain, and lightning are all manifestations of him and they are sometimes worshipped as such. There are also sacred trees under which prayers are offered up and sacrifices made, for they have no temples other than clearings in the forests, with the blue sky above. This makes their devotions none the less sincere, and to be present and witness a solemn gathering is an experience which could not fail to impress the most skeptical of persons.

On one occasion I was lecturing before an American audience, when I referred to the fact that I was deeply impressed by their belief in prayer. Strange to relate, I found that in certain quarters I had deeply offended

some people who regarded belief in prayer as the monopoly of Christians.

It has been my privilege to witness many religious rites while in equatorial Africa, and as a member of the Kiama, whose functions I will later describe, I was generally accepted wherever I went. It was obvious to me that they took it for granted that even while they were praying, their prayer was already answered. The A-Kikuyu have no cringing fear of God, but ask frankly for what they desire. To them, God is a God of Love, though he punishes those who disobey him by disease or even death. In time of national distress, such as famine or drought, sacrifice is reverently offered up for divine acceptance.

Nothing but good comes from God, say they. But how, it may be asked, is it that some people are suffering and in distress? This has been a problem for less primitive peoples than the A-Kikuyu. How is it that there is so much that is unpleasant in the world? One tribe explained it to me in this way. They said that although God is good and wishes good for everybody, unfortunately he has a half-witted brother who is always interfering with what he does. This half-witted brother keeps on obtruding himself and does not give God a chance.

The A-Kikuyu ascribe the ordinary ills of life to the bad spirits of the departed, but after all, these ills are not without their remedy.

I have said that sacrifices are offered to God, but it must not be imagined that the A-Kikuyu do this for the purpose of propitiating the Supreme Being. They have no sense of sin, but they offer up sacrifice as a present to God, in order to win his future favour. I have already mentioned that these people show no cringing fear of God, and I cannot too strongly emphasize this. He is not angry, therefore does not need to be propitiated, but, like all of us, he does love presents.

When a sacrifice is made to N'gai, the best is given. If a man has not a very good sheep or goat, and he wants to offer a sacrifice, he will sell two or three of his goats and buy a perfect one from a neighbour, "one without blemish." Such a present makes it possible for him to ask for something really worth while in return—"O God, you who have many things, give me some, please. Listen. I want goats; I want sheep; I want children. Listen, I want plenty of them, O my father, that I may be rich. Do you hear, O God, my father?" There is something delightfully frank and open about this prayer, which is quite typical.

Those who officiate at the solemn sacrifice are hereditary chiefs or elders who hold tribal office. Here again we see that the religious and secular institutions blend into one—the Church and State are identical. In addition to this there is a body of medicine men—a kind of medical profession—who are credited with being endowed with special power from God. However, these latter are practitioners rather than instructors, as the

work of religious instruction is left to the elders and fathers of the tribe.

The sacrifice to N'gai is most impressive and is calculated to convey an awe-inspiring sense of the nearness of the Creator. This ceremony is performed in the open under a sacred tree, which, so far as I have observed, is generally a Mugumu, or Parasitic Fig.

The Kikuyu sacrifices remind one very much of the Hebraic sacrifices described in the Old Testament. The meat offering and drink offering both enter into it, and often take place at the same time, prayer invariably being offered to N'gai, the High God.

The drinking of N'johi, or native beer, made from the sugar cane, follows the sacrifice two days later, one day being given up to the brewing and preparation of this drink. It is of interest to note that only the old men take part in this religious rite, which is far more like a parochial prayer meeting than anything else I have seen. The participants sit round in a circle in the seclusion of a hut, and each in turn offers up prayer, while at intervals all the company respond "N'gana, N'gana" (Amen, Amen). The N'johi is passed round in a cup which is replenished from a large calabash. The prayers offered on such occasions have a very close resemblance to certain of the Psalms. For instance, a common form of request runs thus:— "That our flocks and herds may be increased, that our wives may be fruitful, and our children be healthy and that we may become rich in the land." That they may have children is a very

common request. To them children spell prosperity. A male child is wished for in order that he may be able to lay the ghost of his father when his time comes to depart this life, but amongst the agricultural tribes that I have come across, after the birth of one son, female children are more popular. This is readily understood, as each girl at marriage brings a dowry of about thirty goats.

I think people generally have a false impression of the position of African women. They imagine that the African woman is merely a slave and treated as one of the many goods and chattels. This idea may result from the fact that women are responsible for the cultivation of the crops, and that they fetch wood and water for the household. In truth, the position of these African women is relatively higher than that of a woman in other countries, by reason of the fact that she is head of her family.

Once I happened to interpret a conversation between a Kikuyu woman and the wife of a District Commissioner. In discussing her position, the native woman had taken pains to show the white woman that her position in tribal life was superior to that of the white woman.

Because a man has two or more wives, he does not necessarily think less of them. Each wife is head of her own family and has her own establishment, and her children depend on her much more than upon their father. It is considered a great honour to be the first wife, but there is no jealousy when the others enter the

establishment. The second and subsequent wives are always acquired at the primary suggestion of the first wife. A man may be married for a year, and his wife will go to him and say, "My man, I think it is about time you married again. Do you not realize that I have a lot to do?" The husband may protest, "I am perfectly content, and I do not want anyone but you." Besides he may add, "I really can't afford it." If she persists the husband may ask her if she has anyone in view for him, and she will perhaps remember a friend who had cultivated the next shamba or garden to her own before she was married. After considerable persuasion on the part of the wife and if there are a sufficient number of goats—that is to say, if funds permit—the husband will ask her to see the girl's father and arrange the marriage.

Later on, the original wife may again approach her husband, pointing out that the fields are increasing in size and the herds and flocks are multiplying, and she must have still further help. Again she is instructed to make an application. There is no jealousy, for they all live in tranquillity in their own houses, and they each have their own tasks. As their respective families grow up, the girls assist them in the fields, while the boys herd the cattle and sheep.

I do not wish to give the impression that the A-Kikuyu love for offspring is merely economic. They have the same love for ancestors. Among the people who live in the Nika or Desert country, a tribe on the coast, there is an interesting custom. At the death of his parent

the son carves an effigy on a post varying from three to six feet in height, and plants it in the neighbourhood of his hut. This is called a Kikango. Once a month it is his religious duty to sleep outside the hut hard by this post. If a stranger were to ask him why he did it, his only explanation would be that it was "Dasturi," or the conventional thing to do. After being some time amongst these people, and gaining their confidence, I learnt from them that this was a ceremony of deep significance, for they assured me that when they slept by that shrine of their departed ancestor, he came back and spoke to them and was able to give them help to carry on their life. In other words, they gained inspiration in their communion with the departed.

This raises the much discussed question as to whether these people believe in life after death. To me, the foregoing is sufficient evidence to conclude that they do believe in a future existence. The A-Kikuyu talk of good spirits and bad spirits. They say that if a man has done evil in life, he is liable to continue doing harm after death, and as I have already explained, such evil spirits are blamed for many of the maladies which afflict the living.

Judged from our point of view, these Africans present a very curious mingling of qualities, both good and bad, but, unhappily, it must be admitted that hitherto contact with the white man has tended to develop more their weak points than to strengthen

African Walnut Tree

the good of their character. They are naturally self-indulgent and improvident, for they live in the present without taking careful thought for the morrow. And yet, strange to say, regarding them from the material standpoint, wealth per head of population is far greater than it is in any of the countries of Europe. They are superstitious and credulous, but eager to understand and quick to copy the ways of the white man, which do not always benefit them. In the matter of things supernatural, they show a vivid imagination. Kind and hospitable to each other, they will share the little luxuries as well as the necessities of life. If a man has two corn cobs and meets another who has none, he will give him one. Lovable and trustful, yet unstable of character, they are naturally inclined to be lazy, but when once given a taste for work, they like it.

But to be in a position to help them, it is necessary to have, first, a thorough knowledge of their spiritual and mental attitude towards life. These peoples do not need our pity. They want our understanding. To understand them we must divest ourselves of our prejudices. We must realize that in their present state they are comparable with other peoples at the same stage of development. Because their mode of life is different from ours, it is not necessarily unsuitable for them. We must eliminate that smugness which is too often a characteristic of our attitude towards African races. We must be prepared to go with them into the forest,

and in its tropical depth amongst its ever changing beauties, learn what is for them, as for us, the secret of life, the love of "Mwininyaga," The Great White Spirit.

Chapter XIV

THE SECRET OF THE KIAMA

ALONE on Safari, travelling from place to place, often pitching one's tent on a new site from night to night, one naturally gets to know a people and their country.

For those who are not familiar with the term, I must explain that Safari, means a journey—it is the East African expression for the West Coast word trekking. You have but to say the word over to yourself two or three times, Safari, Safari, Safari, to appreciate its beauty, and life on Safari in the Highlands of Kenya offers many attractions. In the old days journeys were always made on foot and in the course of my work in the forests other means of transport was generally impracticable. Thirty or forty porters carried my loads and sufficient food for everybody. I liked to set out at dawn and halt for breakfast after two or three hours on the trail, afterwards continuing until lunch time, which was a variable meal, but generally speaking by two o'clock my tent was pitched on the new site. In the choice of my camp proximity of water was a first consideration and I preferred to pitch my tent on high ground on the outskirts of a forest facing the direction of my next day's journey so that I might look over

the country which I intended to travel on the following day.

Within half an hour of reaching the new site of a camp, the tent was pitched and a meal prepared. After lunch a siesta was welcome and at three-thirty I was ready for some fruit or tea. At four o'clock I usually started off with my camera and gun to make pictures and shoot for the pot. On Safari one is dependent on the gun for meat and the carriers would not be happy unless their ration of posho [1] was supplemented. At sundown or just after dark it is a welcome sight that greets one on return to camp; a blazing camp-fire with a hot bath is always a pleasure and after the evening meal it is then one is imbued with a sense of contentment.

Then it is that dark forms appear from the night and creep up to the blaze, squatting in a friendly circle to relate the doings of the day. Sometimes there is a professional story teller who is the cause of mirth. At other times the camp singer will recite in song what happened in the chase.

I found it always paid to have a fool in the party,—a buffoon who would prompt a laugh when the carriers were tired. Such an one was Tumbu Impera, which literally means, Rubber Belly. He always seemed to enjoy being the centre of a joke. How he got his name was this. One evening he came to me with a complaint that one of the other boys had got more food than he had. I remembered a story I had heard as a child of my

[1] Posho—maize meal, which is the principal of these carriers when on Safari.

A Yam Farm

grandfather, who was Honorary Chaplain of a Work House. When one of the inmates had complained similarly that another had gotten more than he, he was told to divide the portions as he considered fair. The complaining man piled all the choice morsels on his own plate, leaving little for the other. When he had finished he was asked, "Are you quite sure that the food is now fairly divided?" and upon acquiescing the plates were exchanged. I think that this must have been back of my mind when I told the greedy carrier to divide the posho as he saw fit, whereupon he delightedly heaped up his kababa [2] leaving the others very much depleted. In the same way I asked him if he was quite sure that the portions were equal and when he protested that they were, I changed the measures and gave the other fellow the heaped portion. Thereupon ensued violent protests from the greedy man. He was a huge fellow, with an abnormally large stomach. I wanted to teach him a lesson so my only reply was, "Run away Tumba Impera." From then on he was known by this name amongst all the carriers who considered him a good joke.

On one occasion we had tramped over twenty miles on a very hot day and at four o'clock in the afternoon the carriers set down their loads and told the head man that they were not going any farther. This was a serious matter for we were five miles from water. I made no comment but just walked along the line closely inspecting each man to see if they were really fatigued or

[2] Kababa—measure.

just in a bad humour. They had had a very heavy meat meal the evening before and I decided that their behaviour was the outcome of excess. As I approached the buffoon of the party he rose to his feet and asked me to give him an advance on his pay. I asked him why he wanted this and he replied, "To buy food." My retort was, "You're always thinking about your tummy, Tumbu Impera," whereupon everybody laughed and the carriers who had apparently been so tired a few minutes before, without another word picked up their loads and gaily finished their journey to the lilt of a merry song.

Once, doing a three months' Safari, I had thirty-six different camps and travelled over twelve hundred miles, but the most strenuous journey covered two weeks when I made a new camp every night, travelling over three hundred miles.

But it was at Kikuyu that I had some of my most pleasant experiences when the day's work was done. Chiefs and headmen would gather around the friendly fire for they love to recite the history of the past which had been handed down to them by their fathers. On one such an occasion I was becoming more than ever interested, when, suddenly, the recitation stopped. I said, "Go on, I want to hear more." The story teller had mentioned something about an ancient kingdom in the heart of Equatorial Africa. My curiosity had been greatly aroused and I wanted to hear more. A venerable chief at this stage interposed this remark, "Shauri ya

Kiama." I gathered from this that what the man had been saying was to do with the Kiama. I then queried, "What is the Kiama?" and gathered that it was a secret. After a little persuasion I was informed in confidence that it was a society to which only the oldest and wisest members of the tribe belonged. That night I gathered little further information, but on the following day I saw one of the headmen who had been present and privately asked him to tell me more about it. Previous to this there had been occasion upon which my keen interest had been aroused by reason of the fact that often when talking freely and frankly they would suddenly become conscious of my presence and lapse into silence. I felt there was a barrier which must be overcome before I could enter intimately into the history of the past.

I had known this headman for a long time and he was greatly respected by the other chiefs and elders. I said to him, "May I not join your Kiama? I should like to know all about what happened in the old days before the coming of the white man." I could plainly see that my friend was greatly perturbed. He was encountering a situation for which he was completely unprepared. For several moments he did not speak and I continued asking him what was the difficulty. I said, "Am I not your friend, do you not trust me?" And every moment he seemed to become more and more embarrassed. Finally, looking me straight in the eyes he said, "Bwana, no white man has ever become a mem-

ber of the Kiama. It is very old. It began in the days when all our people were as one." He went on to tell me that he could not answer my question, but that he must consult with the older chiefs.

Three days later he returned to say that my request had been granted and indicated that my initiation would take place three days later if I still desired it. I was to provide the usual initiation fee in the form of two sheep and one goat and when the day arrived I sent on two of my men ahead of me with the fee and later rode over to the scene of the ceremony. When I arrived at the appointed place I found a clear space in the forest and a gathering of two or three hundred Chiefs and Elders. It was evident to me that this was a very special re-union. Many of the members had come from distances of two or three days and there was much for them to talk about. I was, of course, known to most of those present, for I had travelled through their villages within the previous year or so. There seemed to be no hurry to proceed with the ceremony and as I was due in Nairobi for lunch I indicated that I was ready for them to begin. My headman who had made this possible was about to take charge of the proceedings but a murmur of dissent arose so he quickly retired into the background. Next the paramount chief came forward, for surely he was the obvious person to take charge on this occasion. Again there was dissent from the gathering. It was then that the oldest man present rose to his feet. He seemed to be bent double with age, but as soon as

the staff of office was handed to him a transformation came over him. He straightened up and rising to his full height, presented an air of dignity, seeming fully alive to the spirit of the moment. He was next handed a bunch of Muchoraway leaves which he raised above his head. This was a sign to all to attend to the business in hand. Before this there had been a hum of conversation but now in an instant all was silent. The only sounds to be heard were the twittering of the birds in trees and the distant bleating of the lambs.

A sense of solemnity at once pervaded the gathering and as this oldest father of the tribe raised the bunch of Muchoraway leaves above his head I felt that all were engaging in silent prayer. He now called upon N'gai, the High God, to assist him in the ceremony that he was about to perform. The whole company remained seated, all save the solitary veteran who had been chosen High Priest for the day. In a clear voice he invoked the deity to witness that the white man before him was a fit and proper person to be admitted into the Kiama. At the end of each sentence he brought the bunch of leaves down in front of him and everyone present replied, "Thai," meaning, Hear, or, So let it be.

A series of short invocations followed. "That he may have long life." "Thai." "That he may live long with us." "Thai." He then continued, "I call you all to witness that in time of war his voice shall be heard and there will be peace." "Thai," replied the three hundred elders. "I call you all to witness that the staff of office

which I now give him will be his passport and that he will be received by all other Kiamas. "Thai," repeated the three hundred. "I call you all to witness that the Matati Stick wants him." "Thai, Thai, Thai," said the elders. Upon this the staff of office was handed to me.

The whole ceremony was deeply impressive. I had gone prepared to be interested, but I was now deeply moved by the general feeling of good will, concentrated upon me. I stood there in their midst holding the staff of office and the bunch of Muchoraway leaves, while the oldest veterans gathered around to salute me according to the tradition of the Kiama.

I did not wait for the after sacrifice as I had an important engagement in Nairobi, but bidding them farewell until another day I stepped into my car which was now waiting for me and drove the remaining seventeen miles to the capital town. Upon my arrival at the Hotel where I was lunching with friends I found an interested crowd had gathered. The news of my initiation had gone ahead of me and interested tribesmen had gathered to greet me. At the entrance of the hotel four or five hundred had lined up on either side of the steps and again I experienced a renewed feeling of good will which from then onwards, wherever I travelled in Equatorical Africa, accompanied me, for such is the power of the Kiama.

The Kiama is actually an ancient inter-tribal institution which closely guards the secrets of the past handed down by word of mouth through its members

for many generations. The order represents the combined intelligence of the wisest native Africans. It would seem to be the remnant of a "League of Nations" in Eastern and Central Equatorial Africa. Even when shorn of its executive power, nevertheless it continues to be a repository of information. These peoples have no written history of the past which we can study, and the only means of gaining an insight into their ancient records is to become one of them and sit with the fathers of the tribe and listen to their recitations. This is what I did and although at the time I was subjected to much criticism, from the official powers that were, I have never once regretted the action that I took, and time has now justified it, so that my severest critics in the past have modified their view to the extent of supporting me. It is now generally regarded that a man in government service should be fully trained in the knowledge of native custom, mentality and social organization and since my initiation into the Kiama I am glad to see a much more sympathetic attitude towards the so-called "subject races."

It is a deplorable fact that the invasion of Western civilization and European methods of education are threatening to extinguish local tradition, and in a few years if such methods continue, the romantic story of the past will be entirely lost, for the young African is at the present moment so intoxicated by the new Western learning that he has come to discredit the old men and their traditions.

The Africans possess certain fine national traits which, in the interest of the future well-being of the people, should be handed on. The young African of today too often has the idea that to be successful he must make a clean cut with the past. There is no doubt that our present system of education in Africa is very largely to be blamed for this, for we are forcing upon them the European curriculum, which, by the way, has not proved itself to be an unqualified success even in the countries of its origin. This curriculum we are imposing ready made, with all its defects, upon the African peoples, without sufficiently attempting to modify or adapt it to their requirements, with the result too often that the young African scholar begins to discredit everything that belonged to his fathers. In his enthusiasm for the new he is apt to forget the old, and often fails to realize that there are things in his own past worthy of remembrance. I am confident, however, that this state of affairs will quickly change when the young enthusiast has pursued his studies a little farther. But it is important that in the interim the secret of the past should not be lost.

Now that I am writing for the first time of my experience of the Kiama, I find myself in a quandary. I am torn between two ideals; on the one hand I am loath to betray any secrets entrusted to me for keeping, and on the other hand for the future welfare of the race and a better understanding of their customs and beliefs I feel myself compelled to speak. Undoubtedly

Fashioning a Dug-out Canoe

many of the blunders and mistakes which we made in the past could have been avoided by a better acquaintance with the history of the race as handed down through the Kiama. My sincere desire is that what I reveal may reach those who are in sympathy with my ideals or who are prepared seriously to study the secret of the past in the ever growing interest of Africa and humanity as a whole.

It is believed that the ancient Kingdom of Equatorial Africa comprised a territory, which was, as nearly as I can discover, more than half the size of the United States. Some romanticists might conclude that the conception of this ancient kingdom is founded on the preaching and teaching of Prester John. Be that as it may, the idea almost universally persists, although the Kiama is all that remains today of its pristine glory.

In the past the functions of the Kiama have been many. Not only has it safeguarded tribal history and acted as a standing court of justice, but it has exerted didactic functions, it has taught the people. It has even been to them their Bible, and here we find African versions of the stories of the flood and the building of the Tower of Babel. It was with keen interest that I listened to an ancient sage unfolding the story of what must surely be the African version of the story of the Tower. The following is a literal translation of the tale as told to me.

Once upon a time there was a king, and he called all his chiefs together, and spoke to them as follows,

"Lo! I am a great king, past all the other kings that came before me, and I want to build a great palace very high, past all the palaces of all the kings that came before me." And the great men answered the king and said, "What the king says shall be done." So all the people were brought together from every part of the kingdom, from the North, from the East, from the South and from the West, and the King arranged to give them a "Kibaba [3] of corn every day. And they worked all of them together for many days cutting down great trees and dragging them to the building and they all worked very hard.

Many moons passed by, and the palace was built, and the high part of it mounted higher and higher. But the people began to complain that the "Kababa" had become very small, and that they were hungry, for there was not much food in that country. All the people worked on the building and ceased to make new farms. But the king shut his ears to their complaints. After many moons the people began to make a great tumult, complaining yet again that the "Kibaba" of corn was very small, and they said "We must return to our own country and to our farms, for in this place there is not enough food to fill our bellies." But all the time the king was deaf to their words, and every day he urged them to build the palace and to make it very high. And he began to be angry when the people complained, and called

[3] Kibaba—a measure, about a pound and a half in weight.

for his askaris [4] and commanded them to beat all those who murmured, for a great madness had seized him.

But one day one of the great men came near to the king and spoke to him softly, softly, and said, "Do you not see that the people are very tired, for they have worked many years and are all becoming old men at the work? You said, "Make a great palace. Behold and see with your eyes that it is truly a great one and is higher than any palace that man has made." But the king was very angry and drove him away, saying all the time, "Make it very high, very, very high."

Not many days afterwards, he again called all the people together and said, "Look! do you see yonder mountain?" And all the people looked towards the mountain, at whose top was Mwininyaga, the Great White Spirit. For this reason it was a holy mountain, and all the people loved to pray to Mwininyaga who lived even in the highest place. And the king drew himself up in his pride, and spoke many words, saying, "I want a place like that; I want a high place, even higher than that mountain, where you say dwells your god." And the king walked up and down laughing to himself at his own fine speech, but the people knew that the king was mad, but they were afraid, and worked on for many more moons, the king urging them every day, and saying, "Get on with it, get on with it."

But the people were exhausted and were losing cour-

[4] Askaris—native police.

age because there was little food, and by this time the forest whence they cut the trees for the work of building was far away, for all the trees that were near had been cut down for the purpose of building the palace. But still the king kept on saying, "Get on with it, get on with it." And he said to all the people, "Listen. I want a throne so that I may sit on top of the high place and be greater than the God you call Mwininyaga.

And there came a great famine in the land and many of those who worked died, and those who remained were now too feeble and old to go to the forest. Yet all the time the king kept on saying, "Make haste, be quick." And those that were alive and remained on the work spoke amongst themselves and said, "Surely the king is mad; let us not be mad also. If we go to the forest to carry wood to make the throne we shall surely die before we can return, for the forest is now distant many days. Behold! here is much wood underneath the building, and the beams are very strong; let us not go then to the forest, but let us take just a little bit of wood here and there underneath, for no man will see us." And they all agreed that this would be a very good way. And they consented among themselves to keep their plan secret.

After many days they arose very early before it was light, and took the wood which they had cut from underneath the foundations of the palace, and carried it out a little way. And when the king, as was his custom, came to see the work and to enquire if his throne was

Many Willing Hands

finished, they made as though they had just come from the forest after many days' journey. Their bodies were covered with dust and they fell down at the feet of the king under their burdens, saying, "Behold, see the wood that we have cut down this last that remained." And the king said, "It is good. There is enough for my throne." And he said to the craftsman, "Make me a throne very quickly and set it on top of the high place."

And the craftsman made a throne on the highest point of the palace which was so high that a man standing on the ground could not see it. And all the time the king was urging them on till it was finished.

Then the king said, "See now my throne is very high, even as the mountain and throne of God." So he called all his great men and people together, and there was a vast multitude of people and he went alone to sit on the new throne that the craftsman had made. And the multitude of people looked, but the king could not be seen, for he had gone up beyond their sight. And they began to say, one man to another, "Surely he is great, even as God." Only the workmen were not deceived, for they remembered his harsh words and actions, and remembered their brothers who had died at the work of making the high place and the new throne.

Only the multitude gathered by the order of the king began to worship before the high place. Suddenly a very great storm arose, and the wind beat upon the high place, and the sand blinded their eyes, so that they could not see. And all the time the wind blew harder and

harder and some said, "Look, look, the high place is broken below. It falls, it falls!" And they ran from the place quickly but the sand blinded their eyes, and while they were running into each other, the high place fell upon them with a great noise, and killed many. And those that remained alive were speechless, and fled, each man his own way by himself, not knowing whither he went.

Chapter XV

THE STORY OF MUNYAI

Besides recording the story of the past, the Kiama cherishes prophecies which have been uttered by its members. It is to this organization that the early British pioneers owed the friendly welcome they generally received at the hands of tribal Chieftains. Although at the time they may not have been aware of the fact, it is true that these people, whom they regarded as barbarians, had been prepared from their youth to look for the coming of the White Man. Indeed few realize how much the Kiama has assisted British colonization in East and Central Africa.

To understand why the early British explorers were welcomed and taken right into the hearts of the people, one must have access to the prophetic teachings of the Kiama. More than two centuries ago according to their seers coming of the White Men was foretold. Such prophecies have been handed down in story and song until they were rooted deeply in the minds of the people. There is that of Munyai which is one of the many that particularly bears upon the subject.

A long time ago there lived a wise and honoured member of the Kiama, whose name was Munyai. He had

been given credit by the people for successfully combining the offices of physician, detective, priest and rain bringer. One day, after a prolonged drought, when all the streams were dried up and food was very short, the Elders and Chiefs of the people came to Munyai to request him to use his power to bring rain. Munyai listened to their request, and agreed to pray for rain and ordered the sacrifice to be brought. The fatted ox was slain and Munyai stood with hands outstretched towards the great mountain and prayed to N'gai. Soon dark clouds gathered and even while the sacrifice to N'gai was being made, the heavens opened and the rain came down in torrents. Thereupon Munyai dismissed the Chiefs and Elders and ordered them to return at once to their homes. This they did, in spite of the torrential downpour.

After they had all departed Munyai again prayed and then slept. In the middle of the night he had a dream which so moved him that in the early morning, before it was light, he arose and sent messengers to fetch back his visitors of the previous day. About noon they started to arrive and he took them on to a little hill under the shade of a great tree, and when they had all seated themselves on their stools in a circle around him, he began to talk and said as follows.

"You all know me well, for I am an old man now. Was I not also known to your fathers before you? If any man present has anything against me, let him speak

when I have finished talking. Listen all of you well to my words and answer me. Have I not served you well as a member of your ancient council? Not only so, but when you have brought your sick to me, have I not healed them? When evil-doers have stolen your cattle and sheep have I not sought out the culprits and brought them to justice?" And to all his words, the Chiefs and Elders answered "Namega," meaning good.

And Munyai went on to say, "Yesterday you came to me to ask me to pray to N'gai for rain, and rain has come. Last night after you had returned to your homes I prayed and slept, and in the middle of the night N'gai appeared to me in a vision and he spoke to me and he said, 'Munyai, your days are far spent, and very soon you will pass on to sleep with your fathers. But afterwards there will come into your land a strange people, *a people with pink cheeks and pink ears,* and when they come the Kiama must listen well to their words, for they are a wise people and will bring you good.' "

Soon after delivering this prophecy Munyai died, and was buried in the Katinga, a sacred grove, a little way above his farm, and was granted all the honourable rites due to his office. An unceasing pilgrimage was made to the grove of his burial place, and his dying words were treasured in the hearts of the people for they all loved Munyai and believed in his teaching.

Years afterward, when Sir Samuel Baker and Speke, the first British Explorers, arrived in the country, the

members of the Kiama met, and when they had conferred together, they agreed that these were the very people referred to in the prophecy of Munyai.

It was such prophecies, as these handed down by word of mouth, through the members of the Kiama, that paved the way for the coming of the white man. Imbued with the teaching of the past, they look back upon a golden age, and have a profound belief that the British are the chosen means to assist them in their ultimate return to prosperity. It can be readily understood why it was that our early explorers made such a good impression upon the indigenous tribes. Did they not represent a great white sovereign over the seas who stood for order and justice? In their vivid imagination the Africans began to conjure up pictures of a great future. Here was something akin to their own ancient throne surrounded with all its regal power. Herein, I venture to suggest, lies the secret which enabled Great Britain to establish a reign of peace among these tribes which for a time had apparently lapsed into barbarity.

But what of the Kiama today? To the casual observer it would appear that the Kiama had ceased to function in any but local, civil and religious duties. Its members settle boundary disputes, try cases of murder, theft, seduction, and officiate at the sacrifices to "Mwininyaga" the Great White Spirit. In spite of the fact that the Kiama is represented today by many of the sons or descendants of the very seers who, by their favourable prophecies, prepared the way for the coming of the

white man, it is, however, often discredited by those who have not penetrated its secret. But there are already indications that a more reasonable attitude is being adopted towards native usages, and it may well be that in the near future, this ancient Institution will be turned to better account under future administrations.

It is to certain members of the Kiama that I owe much of my opportunity for making friends for the Forestry Service and the planting and care of trees. Although many of their tribesmen had become Forest Destroyers, yet by reason of their traditions they were at heart lovers of trees which they regarded as animate beings rather than inanimate things and to which they always referred as persons. Their sympathy for trees is proved by the fact that whenever they cut down a forest to make a farm, one tree is left in each area to collect the spirits of the others trees that had been felled, so that they might not feel uneasy or go wandering about without a home.

Although the young men were not allowed to enter into the secret of the Kiama, the instruction given to them by its members must of necessity have been affected by its sacred law. It was the elders of the Kiama who first responded to my appeal and made it possible for me to inaugurate The Men of the Trees, and it was their influence in the first instance which led the youth of their tribe to cooperate in voluntary forest protection and tree-planting.

Chapter XVI

DANCING ON THE EQUATOR

To the millions living on the Equator dancing is not only a most important national pastime, but it should be recognized by all those who seek to do constructive work in Africa, that this ready exposition of rhythm is an infallible indication of the thoughts and moods of the people.

The sense of rhythm so pulsates through the African that he is incapable of effectively doing anything without it. For example the simple act of picking up a weed from the ground among certain tribesmen will call for a little song and dance in preparation for the physical effort. As in small things this rule applies also in the case of movements of far reaching importance. The trend of these rhythmic records of current actions are always signs of the mental attitude of the actors in the drama of everyday life, and are as easily read by one who knows how to observe, as a fever chart would be by a skilled physician. For instance, the dance which indicates such a thing as an impending strike is very different to the dance that is performed before renewed or increased effort, such as in a lion hunt, a tribal raid, or the initia-

tion of a new movement—as was the case in the Dance of the Trees.

Dancing not only takes the place of sport, but it is the great means whereby expression is given to the emotions. Throughout Equatorial Africa from East to West all along that imaginary line we call the Equator, dancing has its votaries. It is indulged in by everybody capable of movement, whether they be tiny tots or quite old men and women; each and all have their own particular forms of dancing for every period of life and for every possible occasion, religious or secular, for funerals or weddings.

To the baseball fan or the golfing enthusiast it may seem strange that dancing should take the place of sports, but on the East Coast of Africa amongst the Swahili in the sword dances it becomes a really lively sport. These strenuous duels are swayed by rhythm. During recent years sticks have been substituted for swords but the same actions of parrying and thrusting are carried out to the lilt of the rhythm.

It is a great sight to witness such duels. The Swahilis in their long white flowing robes, or "Kansu," enter the circle of dancers and challenge anybody who may be prepared to encounter them. Trained from youth in the art of fencing, the standard is very high. The object of each opponent is to tear the Kansu of the other while protecting his own garment. Such duels may always be seen at wedding dances. All the time that the duel is in progress a kind of orchestra is provided on a raised dais,

by a company of girls, who sing and beat together buffalo horns, raising and lowering their heads and bodies in rhythmic ecstasy.

Among the absolutely illiterate peoples who live only with fellow natives in the jungle, I can see the most elaborate methods of self-expression embodied in their dancing. But the dancing of those who for generations have come under European influence seems to me to be little more than a shuffle and I fail to detect purposeful expression in their movements. It is interesting to observe that as the African becomes book-savvy his power of expression in dancing deteriorates.

Generally speaking, the African bush native is the most cheerful person. He is inherently light-hearted, inconsequent and happy. He seems to be bubbling over with the joy of life, and this national exuberance is expressed in his dancing which plays such an important, if not the most important, part in the lives of these carefree children of nature.

I shall always remember with keen delight many of the dances held at my camps in the Highlands of British East Africa. Many of these were given to entertain the white man, but it seemed as though no excuse is too trivial for a dance.

They dance in the day-time, beginning about noon and proceed until sundown, then they retire for their evening meal. Two hours later, they are freshly decked out with new war paint for the evening performance.

A different dance is provided for each season of the

year. They would not dream of dancing their equivalent of the fox trot in the summer, if it was recognized as a springtime dance. They do not vary their program as we do ringing changes on the waltz, fox trot, one step and tango, but are faithful to the same dance throughout its proper season.

Sometimes the men dance alone, and at others they join the damsels in a kind of Highland Reel. There are more intimate dances which only take place in the seclusion of their villages. There are, of course, ceremonial dances which are closely connected with religious festivals, in these even the old men and Chiefs participate and many a time I have watched them become rejuvenated and intoxicated with the sheer thrill of it. On such occasions they often break away, forming small groups, and perform a little dance by themselves.

In Kenya, whatever the dance may be, it is always called N'goma; indeed N'goma is a word which can be applied also to any form of amusement—a musical instrument, a drum, or a toy for a child. It might even mean a jazz band, for these are not unknown amongst Westernized Africans nowadays. So strong is the fascination of new instruments that young men have been known to sell all their most treasured belongings to acquire them.

The night N'goma of the A-Kikuyu, which I shall describe, is known as the "M'goiyu," and is by far the most fascinating dance it has yet been my pleasure to witness. This dance is peculiar to the Highlands of

Kenya, where thousands of Europeans have settled, but it generally takes place far away in a secluded village out of sight, if not out of hearing, of the white man. At the beginning of the season this dance starts in a small way in one of the Kikuyu villages, and on the first night there may not be more than fifteen or twenty couples taking part; but after the performance, notice is given of the next meetings, with the result that the number of the attendance may be doubled. As the M'goiyu progresses from village to village, the company of dancers continues to increase. This accession of dancers was the method of the Morris dancers so well known in olden time in England. Whereas most of the dances are for men only or women only, the M'goiyu is a mixed dance, and early in the evening, often before dark, one may see arriving, parties of shy maidens who, if it so happens that they have no male escort, squat in groups at a distance from the village. Here they anxiously await the arrival of their partners, who may be coming from an opposite direction.

The men make elaborate preparations for the dance, smearing their bodies with a mixture of animal fat or oil and red earth, and decking themselves out in fantastic designs, which give them the appearance of being tattooed. As a distinguishing mark, the older Morans, or fighting men, wear ostrich feathers on their heads. This is a warrior's emblem of which they are naturally very proud. A narrow beaded strap is tied tightly below

the breast, or round the waist, and sometimes bells are worn on the ankles. Much time and care is devoted to decorating their persons before the dance takes place. The older a Moran, the more care he takes over his appearance, and in consequence he generally arrives somewhat later than the younger members of the party. As for the women, their costume is exactly the same as that which they wear at their work. The relationship of dress represents the same priority to dance partnership as with us but it belongs to the opposite sex. The male is as highly decorated as the tropical bird while the woman is content with her workaday goat skins.

On the day previous to the M'goiyu dance, the women folk collect a huge pile of firewood. These are generally chips which have been formed when cleaving slabs of Mutarakwa for the walls of their huts. This fuel provides warmth, light, protection and incense. The wood is stacked in the centre of the village and as soon as it is dark a circle of camp fires is lit. This is always in proportion to the number of people who have assembled.

In the middle of the M'goiyu season, a huge circle of camp fires—perhaps twenty in all—is often kindled. Five hundred couples may take part in this dance. First the younger men form a circle round the camp fires, while the girls walk round and come to a standstill in front of the partners of their choice. The woman chooses her partner, the highly decorated male seeking to make himself as attractive as possible to the opposite

sex. The Master of the Ceremonies and Leader of Song begins to chant. The song is first sung alone by the soloist, and then it is repeated in chorus by all the dancers.

Such songs are generally quite short, and are repeated over and over again. Often they sing of the doings of the day, or of the prowess of a favourite chief, or of their white master in the hunting field. If such songs relate to the white man they generally contain the most exaggerated forms of flattery, which in many cases are as insincere as they are extravagant. They are particularly fond of singing of Englishmen and of England. England is to them a romantic country, representing all the greatest and best ideas that can be conjured up in their imaginations. For instance, there is a popular song about England which they never tire of singing, and it runs something like this:-

In England the rupees are
as stones upon the ground
In England the rupees are
as stones upon the ground

Such words may be repeated twenty or thirty times, and to those who have never heard Africans chant, it would seem that a song like this must get monotonous, but in practice, however, the variations of time and rhythm are so many that although the same words may be sung for half an hour or more, the interest is always maintained.

As the evening proceeds the older Morans arrive on the scene, bringing with them their partners, often their

wives, who take their places in the ever widening circle, while they themselves inspect, with critical eyes, the assembled throng. At first the arrival of the senior dancers is marked by a wave of formality, all the couples suddenly putting on their best behaviour. After the inspection is completed, they join their partners in the dance, leaving the senior Captains and Master of Ceremonies in charge.

In the Highlands of Kenya, amongst the A-Kikuyu, in the dance which I am now describing, there is no foot motion. Each man stands perfectly still, the lower limbs are kept rigid, and the feet are not moved from the ground, but the dancing is performed by a sinuous movement of the shoulders.

Each man stands with his back to the fires, while his partner stands on his feet, and clasps her hands round his waist. Like other customs in Africa, there is an underlying reason which is obviously practical to the interested observer. The men, in spite of their many decorations, wear no clothes, hence their naked backs are turned towards the fires, while their partners who are more warmly dressed in skins, protect them from the cold night air. In turn, the men keep their partners' feet warm by allowing them to stand on their insteps. In the dance the men place their hands on the shoulders of their partners and the only movement is a weird rhythmic motion of the shoulders, which keeps time to the song. There is no progression and the position of each couple in the circle does not change. The girls, for their

part, join in the song, but are otherwise passive. From my description of this dance the reader may be led to imagine that it is purely sensuous, and it may be so, but throughout all I always observed that there was a strict sense of propriety and etiquette, which is not always found in the ballrooms of our much vaunted Civilization.

I am here reminded of a story that was told of two old dowagers in London just before the War. They had heard of the modern dances and the Englishwoman was anxious that her Austrian friend should see them; especially the fox-trot, which in those days was an innovation. After watching one of the dances for some time the Austrian remarked, "My dear, I see nothing very modern about this, only when I was a girl we waited until we went to bed."

Before I left the Highlands of Kenya, a M'goiyu dance was held in my honour. It was the end of that particular dancing season, and as the tribesmen had decided to pay me a visit, I suggested that the final dance should be held at my camp. Volunteers had collected a pile of Mutarakwa chips, and when night came a huge circle of fires was kindled and before long the dance was in full swing. A general feeling of goodwill pervaded the atmosphere, and everybody was in a festive mood. Songs had been chosen which were thought to be appropriate for the occasion. This night, in their desire to make me happy, they were singing songs of the forest and tree-planting. This was an innovation, for not many

Mahogany Raft Drifting to the Sea

weeks before, when attending a similar dance I listened to a monotonous song, the words of which, translated are:—

"The Morans have put up their standards
and the English have pulled them down."

Then, as out of sheer perversity, they would ring a change:—

"The English have put up their standards
but the Morans have pulled them down."

After listening to this dirge for about twenty minutes I had ventured to suggest that I should like a change. I was tired of this song. Could they not sing me some songs of the forest? My request had met with immediate response, and their first child-like effort was;—

"V'suri ku pandu m'begu kataka sanduku
V'suri ku pandu m'begu kataka sanduku."

Which quite literally interpreted means:—

"It is good to plant seeds in a box
It is good to plant seeds in a box."

Later their soloist let go his imagination, and improvised a song which met with the heartiest response as there were present many members of the Watu wa Miti (The Men of the Trees). A part of the company would join in

the questions, and another part would reply. The song opened with a questioning verse:

"In the old days
Who cut the trees?
Who cut the trees?"

Back came the reply:

"Don't you know?
Don't you know?
The Kuks, the Kuks, cut the trees."

Again the question was asked by the leading songsters:

"To-day who lead the way
To plant the trees
To plant the trees?"

Once again came back the reply:

"Don't you know?
Don't you know?
The Kuks, the Kuks,
They lead the way
To plant the trees
To plant the trees."

The whole company then joined in the final chorus:

"When the rain comes
We plant trees
We plant trees."

They had remembered these improvised songs, and sang them with their hearts in a way that delighted me. This night, as the evening proceeded, the dancing became livelier and the excitement increased, and finally about midnight, the evening's entertainment ended in a grand finale. Torches were kindled from the dying embers of the fires, and the whole throng began to disperse, each man escorting his favourite partner to her home.

Sitting in my camp, it was a picturesque sight to watch the many little parties breaking up to wend their ways in single file, carrying lighted torches along the winding trains. As the moon dipped behind the distant hills, again the final chorus was taken up and echoed across the valleys:

"When the rain comes
We plant trees,
We plant trees."

When the last string of flame had disappeared, once again all was silent save for the night's weird calls and the forest sounds. But in my mind still rang the memory

of their song that voiced what, as a Forester, I had tried to teach:

"When the rain comes
We plant trees,
We plant trees."

Chapter XVII

FOREST MAGIC

ALL those whose work or interest has taken them into the Tropical Forest must feel the spell of its magic. Even the most unsensitive matter of fact traveller is conscious of this spell, but those who are destined to dwell in its solitudes for long periods out of touch with any life save that of the forest, learn to read its story.

Anyone who stands alone under the dense canopy of the Tropical Forest is overcome with a sense of individual limitations, for in the teeming life of the Forest man seems but a pigmy for the control of that urge of growth which is here continually finding expression in the development of these colossal tree giants.

Here in the Forest one sees the battle of species which has waged eternal war. There is something inexplicably gruesome in this bloodless conflict where forever the weaker are being suppressed in their constant struggle for light. Here an ancient decaying giant of the Forest has fallen, thus for a time breaking the canopy, which allows fresh growth, and in turn this takes up the pitiless battle.

In the study of vegetation the outcome of this struggle is known to Ecologists as the "Forest Climax." This

is the limit of uncontrolled natural growth, in this riot of species, for in all such virgin forest which remains unexploited, the growth but keeps pace with decay, and it is not till man assists nature by cultural operations that there is a surplus of valuable timber assured for the future use of civilization.

For countless generations in the past these vast forests of the Southern Provinces of Nigeria have provided food and shelter for primitive man, whether he lived by his bow, or his hoe. Fearless in the face of the dangers from wild beasts, yet fearful of the unknown mysteries that to him lie hidden in the Forest, he has thus eked out his precarious existence.

The hunters have been the friends of the Forest, for their wants were meagre, and easily satisfied, without the necessity for extensive tree destruction. A few dead sticks gathered from wind-fallen branches provided sufficient fuel. In the spell of the Forest he guarded his own domain from all intruders, for no rival would risk his poisoned arrow. Led by his honey-bird he extended his arboreal apiary, but always within his mysteriously demarcated province. It is the unwritten law of the Forest that each dweller has his own territory. To the white man the origin and observance of this law is inexplicable, except as a survival of the past, but to its power is due the preservation of many of the still existing virgin forests.

In these forests are the giants of the tree world. I have measured great mahoganies girthing over thirty feet,

A Young Teak Plantation

with a clean bole running straight up clear of branches a hundred feet from the ground. Anyone who stops to contemplate these victorious tree warriors who have survived the age-long struggle for supremacy, triumphantly forcing their way through the densely closed canopy, must marvel at Nature's devices. In its early youth this same monarch has combated the raids of rodents, the ravages of fungoid and insect pests, destruction by game, and the greatest danger of all, entanglement by woody lianes. These enemies overcome, new dangers threaten the growing tree as it pierces the canopy of the forest. When it mounts supreme in its victory over the lesser growths, it must withstand the force of the sudden pressure of tornadoes, while far below its stately bole is ever imperilled by the menace of fire from the encroachments of man.

Below the giant trees, tier by tier, are those of lesser height, and last of all, a mass of shrubs interspersed with herbs great and small, all inextricably bound together by the tangled woody lianes and vines.

When the sun is at its height, there is still gloom in the Forest, for its rays scarcely pierce the thickly matted leaves. And when the sun is obscured by the rains there is a sombre sameness that deepens the sense of mystery that ever pervades the Tropic Bush. There is a miasma rising from the soil, which can be seen and felt. The moisture and heat which promotes such rampant growth is often death to man.

When I was on a Forest Survey cutting a line through what appeared to be untouched virgin forest, yet without

the warning that comes through change in topography, the nature of the forest suddenly altered into what was obviously Secondary Bush. Although equally dense as the original forest, it contained a greater percentage of inferior species of little economic value.

Whilst pondering this problem, I stumbled over the top of a bank into a deep ditch, which though densely covered with scrub, suggested the ancient excavations of a city wall. Cutting my way along the bottom, I found that it described the arc of a circle, and was, without doubt, part of the surrounding wall of some deserted city. Further cutting away of the bush for archaeological research was at that time impossible. However, on questioning an old man of the district, I discovered that there was an established tradition of an ancient city that once existed on that spot, which had been abandoned owing to the ravages of some mysterious malady. This with other Forest mysteries I leave for future research.

In spite of the dangers, the spell of the Forest is broken by the sound of the swinging axe as man invades its depths. Feeling his way along game paths in search of the big mahoganies, he stakes his life on his chances, as a prospector on his claim.

He is under the spell of the Forest in his quest for the gold that comes from a successful find. The mottled mahogany log is often an illusive dream, though the ordinary giant is turned to account and, once felled and shaped, begins its long journey from the forest to the sea. Even here the spell of the Forest controls; in the same

quest for gold, native workers swarm to the ropes to urge it on its way.

The treasure of the Forest is ever in danger from the native farmer, and when he clears for successive cultivation, by matchet and fire, the equilibrium is destroyed. The silence of the forest is broken by the fierce crackling of the burning bush, and above the sound of weird incantations it rises into a roar as of an artillery bombardment, the shock of which, once heard, is unforgettable.

In the Rain Forests the Bush will not burn unless first cut by man. After two months' drying, when ignited it burns fiercely, on account of its richness in combustible oils and resins.

These fires so destructive to the Forest, are regarded as a necessary evil, if evil at all, by the primitive farmer, and are a striking example of the appalling waste of nature's resources due to the lack of foresight which still exists in their world today. Without the fire there would be no farm, for the native farmer has not yet discovered the use of natural or artificial fertilizers. He only comprehends that the virgin forest will provide the richest soil in which to grow his yams.

In the forest region this crop is of more importance to him than the preservation of beautiful forest areas. To this cause may be attributed the spreading desiccation of Africa, and the vanishing resources of food supply in worked out areas. I have calculated that the cost of production of a white yam to the native in terms of value for timber destroyed for its cultivation is far

beyond the price paid by gourmets at the Ritz for the rarest of delicacies out of season. In his turn, the African must have his yam. From its harvesting he measures time, and each day of its marketing records another week in the progress of the season.

At the Forest Market one becomes aware of the human life which at other times is hidden. As the sun mounts high, the women folk gather from all directions to display their yams to prospective buyers. They sit by their loads under a crazy booth made from a few palm leaves and begin to trade. Of course there are other articles of commerce exchanged. Just as in other parts of the world today business magnates sit serene behind mahogany desks weighing the pros and cons of purchase and sale, so these children of nature, under the shade of the growing mahogany, demonstrate according to their environment the same capacity for barter. Here in the tropic bush are displayed the usual attributes for business—judgment as to values, and an unconsciously dramatic sense of enjoyment in bargaining, and decisions in purchase which display the subtleties of an almost uncanny craft. This is the social life of the women who travel with their weighty wares astonishingly long distances, often bearing a baby on their backs while followed by quite young children.

The fixed site for the Forest Market in any given area may be several miles from the nearest village, and the animated scene that presents itself during the appointed

The Sacred Tree of Benin

hours of market, contrast with the silence of the deserted pitch when once the busy buyers have dispersed to their homes; for, like frightened children, they waste no time in their homegoing, fearing to be alone and lost in the dark.

Just as the deserted market when in use is the centre of their social life, so the solitary shrine seen by the traveller in the Forest is in the time of ceremony the centre of their mystic life.

At a lonely ju-ju place it has been my privilege to see a Forest-dweller make his offering, unconscious of observation, while on a great feast day I have encountered a gathering of Chiefs and elders clad in their regalia, who showed in every act, even as the old man alone before the forest shrine, their sense of devotion to the Great Spirit to whom it was their wont to turn. In the Forest today there is a silent appeal to the thinking white man who with them will penetrate its depths and seek to be in tune with its life. But without local knowledge of men and trees, it is impossible to lay sure foundations for useful service.

In the Forest comes the desire for the best utilization of its wondrous resources, and the perpetuation of its usefulness through the recurring years. One sees clearly a place for man to cooperate with struggling Nature, and with his knowledge of science direct the growth into the highest use.

Eager to learn, and ready to follow the guidance of

one whom they trust, the forest-dwellers are the first to sense the spirit of the man who would aid them in their life by giving them the results of applied science in terms intelligible to their experience.

Unguided in the past, the native farmer has invaded the best of the Forest. I have travelled along hundreds of miles which suggested uninhabited impenetrable Forest, for so perfect is the instinct for the wild in the forest-dweller that his skilful concealment of the approaches to his farm are often impossible to detect. The explorer might pass a hundred times within call of these approaches, yet have no consciousness of the hidden clearing. It may be only by chance that he will discover that vast areas he regarded as virgin forest are honeycombed with farms.

The formation of Forest Reserves is doing much to limit their wholesale destruction, and native farmers are now being taught, to their advantage, to plant trees in their cultivations between their yams, so that when their food crops are reaped, they will leave behind them on the land a potential forest.

In the world today, whether in Equatorial Africa or elsewhere, people are increasingly realizing the dependence of men upon trees for their future welfare and comfort. By the act of planting trees, man is forever safeguarding the future.

The sons of the forest are exploring new ways and means of livelihood, and as the trees yield up their treasure to civilization, the scientist as a factor in civilization

is safeguarding future supplies, while the forest destroyers are being trained to become tree-planters and true custodians of Nature's lavish and often recklessly dissipated gifts for the future welfare of the world.

Chapter XVIII

ADVENTURES IN THE MAHOGANY FORESTS

The average American seldom realizes all that he owes to Tropical Africa. Yet it is a fact that it is impossible for him to go through a single day without using many things produced in the tropics. He has slept between sheets made from cotton. In his morning bath he has used soap manufactured from the oil of the palm. The copra of cocoanut, and oil from other palms finds its way on to his breakfast table, disguised as butter. The sheaves of corn from which his bread is made, if not grown in Africa, have probably been tied with binder twine from the sisal fibre which grows there. Flax comes from the highlands of Kenya and provides the raw material of the best linen. Ground nuts from Nigeria are often used in the manufacture of confectionery. Ginger, spices, gum, sauces, pickles and a hundred and one of the little luxuries of life, are produced on the equator, not to mention rubber, which directly or indirectly plays a very great part in modern industry.

The mahogany forests, which provide timber so greatly sought after, also yield countless supplies of other products which are both cultivated and also found naturally. The average person already realizes that his

dining-room table has been made from mahogany, but has he ever thought for one moment that he actually depended for his transport on Equatorial forest products? It may never have struck him that his automobile, or the train in which he travels to business each day might not have been possible but for mahogany. But he will perhaps ask how this can be. Certainly motor cars and locomotives are not made from wood, but many of the component parts are made from castings and the patterns are in turn made from mahogany. Mahogany is the best known wood for pattern making. For this reason, a continuous supply of mahogany is vital for many of the key industries. The man in the street merely looks upon mahogany as a good furniture wood. Indeed, mahogany is used as a trade name covering a large range of species used in the manufacture of furniture which possess no characteristic of mahogany but are capable of taking mahogany stain. The largest part of the so-called mahogany furniture sold today is not mahogany. It may be stained American white wood, kauri pine, beech, plane, lime or the bass wood of America, and sometimes even deal. True mahogany is becoming increasingly difficult to obtain. Today we have to go far afield for the best wood, and it is obvious that the farther one has to go from floating rivers or other means of transport, the more expensive it becomes.

One of the last best mahogany forests of the world is in the Southern Provinces of Nigeria. As Conservator of Forests under the Government, the writer has been

in charge of seventy-five timber concessions there, ranging in size from four square miles to two hundred square miles each and has issued permits for one hundred and twenty-five thousand dollars' worth of mahogany a month, belonging chiefly to the botanical family known to foresters as the Meliaceae. This family provides the main bulk of timber at present commercially utilized. Of this family, the genera of Khaya, Entandrophragma and Guarea provide the huge trees which yield the mahogany and scented mahoganies, as well as the African walnuts of trade. One giant tree, which the writer photographed, an Entandrophragma or scented mahogany, known locally in Nigeria as a Sapele wood, named after the place from which quantities of its logs are exported, actually measured 34 ft. 7 in. in girth.

The mahogany forests belong to the type of forest known as the Tropical Evergreen Forests. They owe their existence to the high tropical rainfall. These forests form most of the forest belt of Nigeria. Owing to destructive methods of farming employed by the natives, vast inroads have been made and the diminishing supplies of timber on the one hand, and the increasing demand on the other, is now beginning to cause serious concern. Every year the forests have to be penetrated more deeply to obtain the best trees, and it will not be long before these same forest veterans will become almost indispensable, and their continued destruction will begin to affect some of the most important key industries of western civilization. In the past, these trees were

easily accessible along the banks of floating rivers and the logs could be put into the rivers at a very small cost, but now, light railways have to be constructed and the logs have to be dragged miles before they can be placed on the internal waterways.

How little does the average person, living in civilization, realize the risks and privations that the white man has continually to undergo in his search for the big mahoganies. So much has been said recently of improved conditions of living in the tropics that many people who know nothing about the country, look upon Nigeria as being almost a health resort. It is nevertheless a serious fact that these forest regions of the Southern Provinces are still extremely unhealthy. Sanitation has been improved in the towns, and thanks to the Medical Department the deadly anopheles mosquitoes have been almost entirely banished from certain parts, but it is impossible to alter the insidious climate of the tropical bush, or completely destroy its insect pests. The towns may have been cleaned up, but the rain forests which produce the best mahoganies are still the "white man's grave." Every timber prospector has to take his chance in the fight against fever and a hundred and one risks too numerous to describe.

Native tree-finders are employed to do the preliminary prospecting—men born in the bush and who are uncannily familiar with their own immediate surroundings, and are well acquainted with the trees required by the White Man. These native tree-finders are specialists,

for that is their one job. They have nothing else to do but to find the trees, and when they are found, return to camp and lead their master to them.

If the tree has big buttresses, a platform consisting of sticks fastened with tie-tie (creepers cut from the forest) is constructed ten or fifteen feet from the ground, and upon this the ax-men mount to fell it. When the tree is ready to fall there is an ominous crack, which is actually its heartbreak, and this gives the labourers time to get away before the giant of the forest crashes to earth. When a big mahogany comes to earth there is a dull thud which sounds like the firing of a mine, and the ground trembles, the vibrations being felt for a long distance away.

After the tree is felled, it is cut into logs 18 ft. in length. A good tree will yield two or three logs at least. In one case a mahogany tree yielded seven logs, because at about thirty feet from the ground it forked; thus one big log was obtained near the ground, and three smaller logs were converted from each branch of the fork.

Scoring, which is accomplished by about twenty labourers lined up on either side, with sharp axes, who make V-shaped notches at close intervals all along the log, is not a lengthy process. As soon as this first operation is completed the adzing gang follow, chipping away the sapwood and bark in between the notches. The log is turned and squared in this fashion until each of the four sides are smooth. The end of one side is bevelled

sledge fashion, so that it may more readily slip over the corduroy road.

A track is now cut through the forest from the stump of the tree to the nearest trolley line. Hundreds of other smaller trees are then requisitioned to form a corduroy track.

Extracting the logs is the hardest work of all, and now that the mahogany is getting more scarce logs often have to be hauled six or seven miles before they meet the trolley line which will take them on their way to the nearest floating river.

When the logs have been pass-hammered by a Forest Guard, they are ready for extraction, "potter-potter," or mud, is fetched from the river bank and dozens of small boys run on ahead, smearing this on the corduory track, so that the logs may slip more easily on their way. The small boys precede just in front of the log, carrying the "potter-potter" on large trays made from tree bark. When the track is ready, long steel cables are fixed round the back end of the log, and a hundred or more laborers take up their positions along the road, and encouraged by a head man and song-leader, they strain every muscle as the great log begins to move on its way to the coast. When the going is good, the song of the haulers is gay, but when the log sticks, its cheerful lilt changes to staccato curses. Squared logs weighing up to ten tons are shifted in the way described without mechanical appliances for a distance often of several miles, until they are brought to a floating river. I have measured an ex-

ceptionally large log which weighed twelve tons and required 150 labourers to haul it, even on level ground.

It may be asked, "Why are such primitive methods employed?" The fact is that caterpillars and tractors have been tried out and since abandoned as being impracticable. The ground is generally very soft, and a large tractor has a tendency to embed itself in the soil. The logs are too large to be transported on overhead ropeways. Again, the trees are very much scattered, and the cost would be prohibitive if a light railway were taken to each one.

It may be in the near future that elephants will be trained to assist man in the laborious task of hauling these huge logs over the soft parts of the forest. For a long time it was imagined that the African elephant could not be tamed, though it is generally granted that it was the African elephant that Hannibal used in his campaigns. In the Congo forests, the Belgians are now successfully training the elephant for forest work. Mahouts have been brought from India—men accustomed from their boyhood to train and work with these noble allies, but their task is a difficult one, and many months elapse before the African elephant allows himself to submit to being mounted and pressed into forest service.

When the logs are brought to the trolley line, one end is raised by jacks, sufficiently high to allow the trucks to be run underneath. The log is then lowered into posi-

The Forester's Hut at Sapoba

tion on the truck, care being taken to see that it is properly balanced. When once the log is on the truck, it is a comparatively easy matter to run it to the waterside. In places where the banks of the river are steep, the log is tilted off the truck, and allowed to plunge down the slip way into the water below. It is a grand sight to witness a big log taking the water. The one recorded by my kodak was only of medium size, weighing perhaps six or seven tons, but even this has made a big splash.

With regard to the labourers employed in the concession, many of them come from the surrounding villages. But often they will travel a distance of forty or fifty miles and take up their abode for a period of four months in the forest camp. Some stay on or return year after year, but the usual contract of service is for four months. Each week they draw sustenance money and their main wage accumulates and is paid at the completion of their work. The men work in gangs and choose their own foreman or supervisor who is generally a great wag. He does little or no work himself, but laughs and jokes and leads the song and dance. He is, of course, the most important man and no gang would be complete without a cheery leader.

When a new concession is opened the first thing to do is to issue tools. Each man is supplied with an American axe weighing about five pounds, and a native matchet. The camp is then constructed. Simple huts

generally, near the waterside. Labourers bring their wives and families, and some of the boys are employed in carrying food up into the forest to the men at their work.

My series of photographs was obtained with considerable difficulty. It can readily be understood that in the dense tropical forest, the light is extremely bad, and, even with a very rapid lens, a long exposure is required. And as the logs are more easily moved in the rainy season, the whole series, with two exceptions, was taken while it was raining. I was specially fortunate in obtaining some pictures of mottled mahogany. Occasionally the timber prospector is rewarded by finding a tree with a figure or mottle. Such mahogany is much sought after for veneers, and is very rare. During my recent tour of service, when I was in charge of the Benin Circle, Southern Provinces, Nigeria, I issued a permit for a tree which afterwards proved to be particularly well figured. When a plank was cut and smoothed, it had the appearance of a rippled lake in a setting sun and was really very beautiful. One log of this fetched ten thousand dollars in the open market at Liverpool. Such a find is a great reward for industry, but it may be that there is only one such tree in five, or even ten, thousand, and there is no outward indication of the inward beauty.

Life in the mahogany forests is fraught with danger and crowded with adventure. It is all the same whether you are a prospector, in charge of concessions, a native tree-finder in search of the big mahoganies, an ordinary labourer, cutting the road of a corduroy track or felling

the giants of the forest. The men who go in search of "Red Gold" stake their lives on their chances. In the undisturbed virgin forest there is an ever-present risk of being attacked by poisonous snakes that lie concealed in the stump of a hollow tree and resent the intrusion of man. Hard by the great mahoganies are trees from which a splash of sap will blind a man for many days. The ax-men are in constant risk from falling trees, and what is often worse because unexpected, a dead branch will suddenly crash to the ground, slaying or maiming the victim, who, unconscious of his danger, was driving his axe into a living tree. There are other hazards to which the adventurer in the mahogany forests is constantly exposed. Without warning, he may encounter a tiny thorn, the prick of which will maim a man for life, or cause his death from lockjaw and fever.

To all such perils the forester is never immune. With others, he takes his chance, for his duty is to control the felling and see to it that future supplies are forthcoming to meet the demands of Western civilization.

Chapter XIX

GROWING GOLD

THE precious product of the forest is conserved and the felling is controlled by issuing licenses conveying exclusive rights to cut timber over specified areas. These are granted to Africans of any nationality under the conditions set forth in the Forestry Ordinance of Nigeria. Felling is controlled by a minimum girth limit, and for each tree felled fees and royalty are paid into the Forestry Department. A proportion of this goes to the maintenance of the Forestry Service, while the royalty is divided between the Oba Chief and the head men responsible for the tribal land in which the trees are felled.

Included in the amount paid is a re-planting fee for the purpose of re-forestation. Before planting fees were introduced, concessionaires undertook to plant trees in the place of those they removed from the forest. The results were not very satisfactory, as seedlings were generally rooted up from the bush and planted along the timber hauling tracks, or in scattered irregular plantations around the labour camps.

It was in 1925, with a view to solving the problem of increasing the supplies of mahogany and other species

of economic value, that I initiated Silvicultural experiments at Sapoba. I selected an area in the most important forest, where I demarcated a Working Area of about six hundred acres. It was in the heart of the Rain Forest within the Jamieson River Forest Reserve. I divided the Working Area into four blocks, each containing five compartments of thirty acres each. The systems under experiment within this Area were:

The Transition Method
Uniform System
Periodic Block System
Walsh's System.

In the case of the Transition Method the treatment preceded felling operations, with a view to securing natural regeneration of as large a percentage as possible of better class species. Under this system the following species have been treated: Khaya sp., Entandrophragams sp., Lovoa Klaineana, Guares sp., and Iripiochiton sp.

Under the Uniform System thirty acres are being dealt with annually, and excellent results have already been obtained. There are healthy groups of young regeneration of Khaya sp., Lovoa Klaineana, Guarea sp., and Gossweilerodendron balsamiferum.

The importance of these Silvicultural experiments cannot be overestimated, and their significance will be obvious not only to my many Forester friends in the United States, but to importers of mahogany and the Captains of Industry, whose enterprise is so dependent

on being able to obtain a continuous supply of this valuable wood.

I therefore venture to include the results of my first experiments.

The permanent Quadrats showed the following percentages of regenerated species after the first season:

Permanent Quadrat Chart No. I

	Per Cent.
Gossweilrodendron balsamiferum	69
Guarea sp.	14.5
Khaya sp.	12.5
Lovoa Klaineana	11
Entandrophragma	11
Ricinodendron africana	1
Chlorophora excelsa	.5
Pentaclethra macrophylla	.5

This quadrat was made under fairly close canopy, and the natural regeneration resulted in 200 seedlings, or 2,000 to the acre.

Permanent Quadrat Chart No. 2

	Per Cent.
Gossweilerodendron balsamiferum	96.8
Khaya sp.	1.6
Guarea sp.	1.2
Lovoa Klaineana	.4

This quadrat showed 500 seedlings, to 5,000 to the acre.

Under the Periodic Block System, Khaya sp. were

planted in lines cut through the viring forest which had been heavily exploited during the last twenty years. The planting showed good results, 95 per cent. succeeding.

Wherever pure plantations of Khaya species mahogany were attempted, they failed. It proved that this valuable species needed nurse trees through the whole of its life to bring it to maturity.

Under Walsh's System thirty acres were dealt with, but owing to an incomplete burn over, results were not as satisfactory as might have been expected. As this system entails the felling of all the inferior species, the cost is consequently high in a forest where few other species than those provided by the melliaceous group are utilized.

In addition to the experiments carried out within the Working Area, thirty blanks caused by felling in an adjoining concession are being treated annually under the Selection Group System. All the species before mentioned were also treated under this system, and although it is too early to draw any conclusion from the results obtained, it is interesting to observe that in thirty groups treated there are only four failures. The natural regeneration was more often from seed from neighbouring mother trees surrounding the blank than from the tree which had been extracted.

Perhaps one of the most interesting experiments at Sapoba is the introduction of Chena Cultivators. Twenty-six acres of inferior bush was chosen for this

experiment and divided into half-acre plots, each of which was cleared and cultivated by one farmer in his spare time.

The following species were planted by the forest cultivators in between their food crops, 6 feet by 12 feet; while oil palms, Eloeis guineensis, were planted to demarcate boundaries between farms:—

Tectona grandis. (Burma Teak)
Khaya sp. (Mahogany)
Guarea sp. (Mahogany)
Guarea Thompsonii (Mahogany)
Lovoa Klaineana (African Walnut)
Ricinodendron africana (Useful timber—soil improver)
Pentaclethra macrophylla (Useful timber—soil improver)
Triplochiton sp. (Soft wood for making ply-wood exported under the name Obeche)
Cassia siamea (An exotic, used as nurse tree and ground cover)

An inspection of the farms at the end of the planting season showed an average of 300, while the largest number of trees growing in any individual farm was 366.

The farm crops grown in between the forest trees were corn, yams, ground-nuts, gourds, okra, beans, peppers, and ikpogie. A bonus is given to those farmers who succeed in establishing not less than 500 trees to the acre. Each year a new farm is allotted to the successful cultivator and in time he will build up a valuable additional

Belo and his Wives

revenue to his ordinary income obtained as a forest worker.

Amongst the most valuable substitutes for mahogany is Mitragyne macrophylla, the Benin name for this is Ebben and the Yoroba name is Aburra. Although lighter in colour to the mahogany experiments in wood technology show that the mechanical properties are very similar to the true mahogany.

This thrives best in areas that are periodically flooded, so I selected a swamp area which I clear felled, leaving only mother trees to provide seeds. This resulted in providing a wide belt of thick natural regeneration, seedlings growing from four to five feet during the first year.

My Silvicultural experiment included the demarcating of a number of sample plots, the trees on which were measured annually. In the first plot of Tectona grandis the girth increment averaged over two inches for the growing season, consisting of six months, thus showing that it thrives better in the Southern Provinces of Nigeria than in Burma. Of course it remains to be seen whether the wood is equally valuable.

Up to the present very few species in the mahogany forests are being utilized, and under such circumstances the introduction of cultural systems are bound to be costly, for they entail the removal of those species up till now regarded as worthless owing to the absence of a market.

It may be that the next step towards assisting the

economic introduction of cultural operations is to discover markets for the secondary timbers.

The results of a complete survey of all the timber over 3 feet in girth standing on 90 acres now being treated under the Periodic Block System in the Silvicultural Working Area at Sapoba show the great preponderance of lesser known timbers at present utilized.

AREA: 90 ACRES OF RAIN FOREST AT SAPOBA

GIRTH	COMMERCIAL	UNUTILIZED	TOTAL NO. OF TREES
3–5 ft.	98	926	1,024
5–8 "	52	623	675
8–12 "	57	232	289
Over 12 ft.	10	36	46
	217	1,817	2,034

So far only the plums have been picked. Perhaps one tree per acre is utilized, while the great mass of trees is left standing. The best trees are taken by the concessionaires while the dead and dying together with timber of unknown value are left on the ground. When I say that only the plums have been picked from the pudding, I do not wish to imply that the trees that are left are useless or that the forest pudding ought to be left.

I have found in my experience that observation of the native use of any timber is full of suggestions as to ways and means of utilization and of indicating the com-

mercial possibilities of unknown timbers when once introduced to the market.

The soft woods have been left untouched, though many of them would make excellent paper pulp. There are also woods which might be utilized more extensively in the manufacture of plywood; they might also be used for veneers and matches. There are many soft wood trees of a normal size found throughout the Rain and Fringing Forests. The cotton tree may be taken as representative of this class.

Apart from the soft woods there are numerous hardwood trees of excellent quality, such as Lophira procera and Afzelia africana. There is also an intermediate class of Medium soft woods represented by Triplochiton sp. This has recently been exported for the manufacture of plywood, and for a time there was a considerable demand for it in Hamburg. I would suggest that this wood would also do for backing furniture. There are large supplies to be had near floating rivers.

If Silvicultural experiments are to be introduced on any extensive scale it will be necessary to find markets for all such wood, for be it ever remembered that an unutilized forest is unproductive, the growth merely keeping pace with decay. It is only by economic harvesting, the introduction of silvicultural systems, and by planting that we are able to perpetuate the forest for generations to come.

Looking back over the last eight years of my work as Forest Officer in Equatorial Africa, I regard my silvi-

cultural experiments in the mahogany forests of Nigeria with more satisfaction that I do the collection of millions of dollars of revenue which went to swell the surplus millions of the Colony. Out of seven different systems which had proved successful in India, Burma and other places, I found three which, if adopted, throughout those forests in Nigeria, will be the means of perpetuating their usefulness for all time. The benefit which will be derived from these experiments is not at the outset apparent to others than trained Foresters, but it is only by close observation and scientifically recording results that these experiments and their utility can be observed.

The careful training of the native staff must be developed and they must be given an intelligent interest in the cultural operations, so that when the time comes to extend the work over the whole of the mahogany forests, they may be able to train and supervise the many gangs which will have to be entrusted with the actual Forestry practice.

Chapter XX

THE FEAST OF THE TREES

Trees have always held an important place in the imagination of primitive man. This special regard for trees is not restricted to African races, but appears in the art and mythology of almost every nation. In the growth of a tree man saw a resemblance to his own life. Their age long existence was to him a symbol of immortality. It is not surprising therefore that tree worship goes back to the earliest times, and one of the established traditions among the ancients was that of a World Tree.

The relation between an Ideal Tree and Paradise is so consistent that we may conclude that there would have been no Paradise without the tree. Mahomet had his paradise which was set in the seventh heaven, where grew a marvellous tree whose boughs bent of their own accord so that the people who were lucky enough to be in Paradise could pick the fruit without having to climb up for it. In Indian tradition, the garden of Indra contained as many as five miraculous trees, "that sheltered the gods and provided them with ambrosia."

The ancient Gaels conceived of a paradise where there were many unfading trees and a Sixth Century Irish poem describes how Bryan voyaging to the Isle of Delight saw

"Branches rich with fruit and bloom
Breathing forth the vine's perfume;
Woods moulder not, tho' olden,
Faultless, with foliage golden."

In Genesis we read "Out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil." The Chaldeans recognized a sacred Cedar which was both tree of life and a tree of knowledge that knew "The secrets of Heaven and the magical arts that benefit or injure." Sir James Frazer has pointed out that whilst the initiated were allowed to partake of the wisdom of the Cedar, to eat of the fruit of the Tree of Eden was a sin punishable by death.

Georgina Mase, who is a Man of the Trees, in her delightful tree anthology, has shown that as regards the nature of the two trees in the Garden of Eden, Rabbinic tradition holds that the Tree of Life was supernatural and not unlike the World Tree of the Scandinavians. The same idea is found in early English literature, when Seth, describing what he saw within the gate of Paradise, says:

"It is a tree,
High with many boughs;
But they are all bare, without leaves.
And around it, bark

There was none, from the stem to the head
All its boughs are bare.

And at the bottom, when I looked,
I saw its roots
Even unto hell descending,
In the midst of great darkness.
And its branches growing up,
Even to heaven high in light."

There are many references in Hebrew literature to trees as a manifestation of Jehovah.

Let the heavens rejoice, and let the earth be glad;
Let the sea roar, and the fulness thereof
Let the field be joyful, and all, that is therein;
Then shall all the trees of the wood rejoice
Before the Lord.

The trees of the Lord are full of sap;
The cedars of Lebanon, which He has planted;
Where the birds make their nests;
As for the stork, the fir trees are her house.
The high hills are a refuge for the wild goats;
And the rocks for the conies.

From time immemorial the Jewish nation have celebrated annually what they call the Feast of the Trees. It falls on the Fifteenth of Shevat. It is that time in the year in Palestine when the first signs of Spring ap-

pear. Myriads of wild flowers bedeck the hillsides and the country clothes itself in holiday garb.

During the long years of the Dispersion, this Feast has been kept up by eating the fruit of the trees that grow in Palestine, but now that the Jews are returning to the land, this Feast has been revived with all its national feeling. During a recent visit to that land of historical interest and future prospect, where I was privileged to set on foot a tree planting movement and inaugurate the Society of The Men of the Trees, I was greatly impressed with what I saw. At Biyet Vegan the House and Garden suburb of Jerusalem, I took part in a tree planting ceremony on the day of the Feast of the Trees in which four thousand school children came out from the City to plant avenues along the new roads of this residential quarter. Such was the interest that sixteen thousand grown-up persons attended the ceremony. The young planters were welcomed by the Rabbi of that quarter, and speeches were made emphasizing the importance of trees to the country.

In Palestine, tree planting is closely associated with possession of the land. There is a saying amongst Jews and Arabs that "He who plants in the land shall possess the land." There is no wonder, then, that on the Feast of the Trees school children throughout the country should be taught to plant for posterity. In the same way that Arbor Day has now become associated all over the United States with patriotic and aescetic, as well as economic, ideas.

Calling the Sacred Crocodile

Amongst the more highly developed races in Equatorial Africa, such as the Bantu, all religious ceremonies take place at the foot of a sacred tree. Strange to say the tree that is almost invariably chosen is of little or no value, economically speaking, in their domestic life. Wherever I witnessed ceremonial gatherings they were held under some variety of Ficus, and here it is interesting to note that the title of the Tree of Life has been claimed for the Hindu World Tree—the ficus religiosa. The Africa ficus was generally of the parasitic variety of fig. The one thing that it did yield was good shade. The branches were widespread. There could indeed be no better Church or Temple in tropical Africa than the shrine of the sacred tree. Such trees have in time past been religiously guarded. Often as a Forest Officer I came across them when I was creating a new plantation, and before I knew the significance of the Ficus I gave orders for such a tree to be cut. Naturally labourers were reluctant to touch it, and it was only when a direct order was given that such trees would be felled. Owing to the enormous spread of the branches yielding dense shade, young trees of valuable species would not thrive underneath them, and in creating a uniform forest it was obviously necessary to dispose of those that were interfering with the new plantations. However I was always careful to respect such trees that I knew were used for ceremonial gatherings.

I do not wish to convey that the only trees protected or venerated in Equatorial Africa are useless. In the

Katinga, or sacred groves, which provide the burial place for respected Chiefs and Elders, are a variety of valuable species. These groves have their own protectors. In the Highlands of Kenya the work of conservation may be confined to the members of the Ethiga Clan who deal with the Spirit of the Forest. This order became one of the recognized guardians of sacred groves when the surrounding forests were destroyed and to them we owe the preservation of frequent patches of trees seen on the hill-tops in what would otherwise be a barren country. When the powers of this Clan were invoked for protecting any forest they took an earthenware pot and collected water from each and all of any streams or springs within the area to be protected. In the very centre of the forest a tiny clearing was made for a miniature altar consisting of three stones, upon which was placed the earthenware pot. Fuel was collected from dead sticks, a fire was kindled underneath, and the water was brought to a boil while appropriate invocations were made. The boiled water was then returned to the various streams, care being taken that each of the sources from which the water had been collected should receive back a share of that which had been consecrated. The pot was then brought back to the scene of the ceremony, and there shattered on the stones of the altar.

The Ethiga Forest-Protector then blows his ceremonial horn and proclaims that if anyone offends by cutting down one of the trees in this forest his life shall blow forth and be lost, even as the breath through the horn.

To the respect paid by succeeding generations of inhabitants to this spell, the very existence of the undisturbed forest is due.

In West Africa amongst the negro and negroid peoples, similar conservation methods are employed, but in the latter case, instead of specially protecting the trees on the hills, they devote their attention to preserving the vegetation surrounding the source of a stream. So strong was the taboo placed upon some rivers that no inhabitant would dare pass by the source. What ceremony is employed in this case I am unable to relate. Whatever it is, it proves to be most effective.

One of the most interesting tree ceremonies it was my experience to observe was the Amofi Festival. This mysterious ceremony is of great importance to the people of Benin and takes place in the early part of each year.

It originated in this way. It was a past Oba or King of Benin who when fleeing from his enemies in the dense tropical forest was being pressed hard and was about to be captured when, as their tradition tells us, he grasped a forest creeper or woody liane which caught him up and enabled him to be magically concealed in the uppermost boughs of the tree. The pursuing enemy passed by and the Oba was able to return to his walled palace in time to rally his followers, saving them and himself from destruction.

To commemorate this miraculous escape by the aid of the tree the Oba of that day inaugurated this ceremony,

a celebration of which it was my good fortune to witness.

A sacred tree—a cotton tree in this case—is kept for the scene of this annual ceremony. It is situated about a quarter of a mile from the residential part of the present Oba's palace and before it is a clear expanse of grass upon which the multitude assemble each year to witness the significant performance.

The Oba himself plays a leading part in the ceremony and it is one of the few occasions during the whole year when this great Ju-Ju Chieftain openly shows himself to his people.

For the actual performance of the Amofi ceremony only two young men are employed though they have understudies who are ready to take the place of either who for any reason whatever may be indisposed. These Amofi performers are carefully trained for months before by head men and they all receive sustenance from the Palace and allowance, generally in kind, for their keep.

On the occasion of this year's performance I was early on the scene and noted that the tree had been prepared with fine ropes made from local fibres. These were hanging from two of the upper branches and separated from each other by several feet. The grass on the open expanse in front of the tree had been cut and although there were groups of young people scattered about, the main crowd had not yet gathered.

I had work which needed my attention for an hour

and when I returned in the cool of the evening a vast concourse of people had gathered and were waiting the arrival of the Oba. Near the foot of the tree were the Amofi performers putting the finishing touches to their make-up. They had an elaborate set of mirrors adjusted on their backs, the purpose of which was not at first obvious to me.

The arrival of the Oba was the signal for the beginning of the first event. Quickly two of the young men clad in their ceremonial costumes mounted the ropes and suspending themselves mid-way between the earth and the uppermost branches began to swing round on the rope winding themselves up until the spring of the rope forced them to unwind, which they did slowly at first then spinning faster and faster until the rope began to wind itself up in the reverse way. This was repeated several times while the multitude held their breath, intent on the dangerous looking performance. The light was not good and from the direction of the onlookers, the ropes supporting the performers were invisible, creating the impression that they were circling in space, as if by magic.

Presently, they mounted higher and plucked leaves from the tree and scattered them upon the assembled crowd, who eagerly grasped them as they fell. Those successful in obtaining a leaf congratulated each other on their good fortune.

The spell created by the early part of the performance was now broken by the scramble for the leaves and

at once there was a general rejoicing, and while the younger members of the crowd indulged in games and various antics, their elders jostled each other in their eagerness to give their greetings to the Oba.

It was a pictureque sight to watch these young athletes trained from their youth for this brief annual ceremony —their white robes decorated with many reflectors which threw back flashes of light from the setting sun as they swung on the ropes and scattered the lucky leaves on the assembled populace. The spirit of the moment was infectious and as the Oba rose from his temporary throne to return to his Palace, a glad procession was formed, which followed at a distance until he had re-entered the Palace walls.

To his loyal subjects the Oba is as God—the arbiter of their fate and destiny, and the Amofi ceremony commemorating the salvation of a past Oba by means of a forest tree is indelibly recorded on the minds of the Benins as they annually witness this spectacular significant performance.

Chapter XXI

MORE AFRICAN FRIENDS OF THE FOREST

To arrest the desiccation coming down from the north I found it necessary to establish forest barriers. This was no easy matter, for the land was owned by many different Chiefs who were not always friendly amongst themselves and often regarded each other with suspicion. But without the willing cooperation of every one of them along the line of my proposed barrier my work would not have been completely successful.

With the friendly cooperation of responsible Political Officers and District Commissioners I was able to arrange palavers with many district heads and finally, having in each case obtained their confidence, I brought them together and they all agreed to contribute a strip of forest and thus I was able to bring forward proposals for a Forest Reserve approximately four hundred miles in length which contained over a quarter of a million acres of trees. Inside this area, farming was to be restricted and the Forest maintained and added to as opportunity occurred.

In all my work I was greatly assisted by my native staff, and I cannot speak too highly of their splendid devotion to duty. There was dear old Igabon, my faith-

ful interpreter, who could speak seven different dialects. He always accompanied me on my big treks and assisted me in the Forest Palavers. I have often been alone with him in many a tight corner, but there is one occasion which indelibly impressed itself on my mind. My loads had gone on ahead in the early morning by canoe to a distant rest house, and as I had work to do in some of the Forest concessions I had to travel by a circuitous route and took with me Igabon who rode in my side car. Late in the afternoon, when we were still ten or twelve miles from our destination, an unexpected tropical downpour began. The rain came down as it only can do in those Rain Forests of the Southern Provinces of Nigeria. I was already late keeping an appointment I had with Chiefs at my destination. Just when I was in a particular hurry, and already drenched to the skin in the storm which continued without abating its fury, my motor bicycle stopped. I repeatedly worked the self-starter, but nothing happened. I carefully examined the machine for any trouble, but everything seemed to be in perfect order, and yet it positively refused to go. All this time the storm was getting worse, and now it burst with all its fury right overhead. Vivid lightning lit up the canopy of the Forest and deafening thunder, peal upon peal, became incessant. The narrow Forest trail had turned into a raging torrent, and still I struggled unsuccessfully to make my machine respond to my urgent call. We were indeed in a perilous condition, miles from camp and any sort of habitation, soaked to

In the Bamboo Forests of Kenya

the skin, with no food, fire or shelter. I told Igabon to get out of the side car and walk away a little distance and wait till I called him, as I wanted to ask my God to help us. He moved away twenty yards or so, and for my part I challenged the Almighty, "For Heaven's Sake, don't let me down now—if I have failed, I'm sorry, but O God, prove Thy power now." I waited a moment, and then again tried the self-starter, and, wonder of wonders, the engine went like a bird. I called Igabon back and said, "You see, my God is great?" "Truly, master," he replied, "your God be big past all."

Within a couple of hours we turned up at what was to be my camp for the night. The Chiefs had long been waiting and I told Igabon to salute them for me and explain to them why I was late. He then dramatically described the storm and what had happened, and then how I had called on my God to help me. He ended his dramatic recital with the words, "You see the White Man's God be great past all Gods. He is fit even to make the motor go." From then onwards, whenever I went to a fresh district and was having Palavers with the Chiefs, upon introducing me and explaining why I had come, Igabon would always have to tell them the story of the storm and why the White Man's God was big past all. Thus, this dear old Pagan became one of the greatest missionaries in the land.

One day, I was sent down to Lagos on duty and returned ten days later to find my old Forest interpreter desperately ill in the hospital. The doctor could not be

certain that he would live another day and as a last hope he had decided to operate on the patient that night. When I entered the hospital ward and went to Igabon's bed, he at once brightened up. I said, "Tell me, where does it hurt most?" and when he indicated the place, I took off my ring mounted with a stone which had been owned at one time by Abdul Baha, the Persian philosopher, and had been given to me by a mutual friend. I now made the Sign of the Cross with this stone on the affected part, and in a few minutes relief came. I left Igabon clasping my ring and that night when the doctor returned he decided not to operate, for he recognized such great improvement in his patient. But the time was drawing near for me to return on leave, and three weeks later, as my homebound ship left the Quay, at that very moment my faithful old interpreter passed on his way to his last rest.

Another faithful African friend was Belo. To give him his full title, Sergeant-Major Belo Akure was one of the finest orderlies that any Forest Officer could wish to have. He was always cheerful, and however early it was in the morning, he was always ready for the trail. "*Good* morning, Sar," was his invariable greeting. He always put the emphasis on the word "Good." You simply had to be cheerful, however threatening the day politically or atmospherically. I always liked to take him with me when I had any particularly difficult task on hand. He was a tower of strength and his good humor, combined with a strong sense of discipline, made him in-

valuable if occasion arose to deal with the truculent Chief or Headman.

In the War, Belo had won a double D.C.M. Once he swam a river with a rifle between his teeth and drove out an enemy picket on the other side. After he had successfully completed this task, he found himself under fire from another direction, which was out of his control, so diving back into the river, he swam to the bottom, hid his rifle behind a rock in the bed of the stream, and came up again on the side of his own camp. Upon his return he voluntarily put himself under arrest for having lost his rifle, and spent the night in the Guard Room. The next morning he was brought before the Colonel, who said, "Belo, I am very sorry to see you in trouble, is it true that you have lost your rifle?" "Yes, sar," said Belo, "but I know where to find him. If you send two canoe boys to the middle of the river, and one dives down, he will find it behind a big rock down at the bottom." The Colonel followed Belo's suggestion, and soon the canoe boys returned with the missing weapon. This event only added proof to the fact that Belo was the gallant Sergeant, who had accounted for the enemy picket, and for this he won his first D.C.M. Belo was no fool, and by this tactful manœuvre he made sure that he got credit when it was due. Belo's exploits are well known to all on the Coast, and I could tell many a thrilling anecdote of our adventures together, but exciting as these were, none of them equal an occasion when he was alone in the East African Campaign. He was out scout-

ing in the hills and seeing an enemy detachment approaching his direction and climbing the mountain trail, he took cover behind a big rock just below the sky line. Here he coolly waited until the enemy arrived within a few paces of the spot where he was hiding. He then sprang out with his rifle leveled on the Officer who was leading the detachment, challenged the party with such spirit, "Halt. Down your arms, March to the rear," that immediately his order was obeyed and the Officer, with thirty followers, downed their arms and did as they were told. The last few men were then ordered by Belo to tie up the rifles in bundles, which they did under cover of Belo's solitary rifle. Instead of walking into Army Headquarters immediately, several miles had to be travelled, and alone Belo escorted his prisoners to his Colonel. Upon arrival at Battalion Headquarters, it was on the recommendation of the German Officer that Belo got his second D.C.M.

At the end of the War, Belo came before his Colonel once again, for he had a complaint. The Colonel addressed him kindly and said, "I'm sorry, Belo, what's your trouble? I hear you have a complaint to make." "Yes, sar," said Belo. "What is the trouble?" demanded the Colonel. "Isn't the food good?" "Yes, sar," said Belo. "Aren't you getting enough of it?" said the Colonel. "Yes, sar," replied Belo. "Well, tell me, Belo, what is your complaint?" continued the Colonel. "You see, Sar, I be soldier man—I be good soldier man." "Yes," agreed the Colonel. "We all know you are a splendid soldier,

A Baby Warrior in a Forest Squatter's Camp

Belo, but tell me, what is your trouble?" Again Belo exclaimed, "Please, sar, I have a complaint. You see, I be soldier man, I be good soldier man, and you now say 'No kill men,' that is why I have a complaint." In fact, that very morning news had arrived that the Armistice had been signed.

When engaged in demarcating a new Forest Reserve near the banks of the Niger, I heard of a mysterious lake which was cut off from the surrounding country by a circular swamp extending, in the narrowest part, a distance of approximately two miles. This mysterious piece of water I learned was the centre of an ancient tradition. When the people of Agenebodie were fleeing before their Fulani invaders from the North they took refuge on the banks of this lake, skilfully crossing the swamp on bamboos cut from palms, in the very same manner that I had to employ in order to reach the lake. The last man to leave the firm ground collected the bamboos and passed them along to the next, so that by the time all the inhabitants of the village had passed over the swamp, there was no bridge left behind on which their pursuers could cross. The enemy, not knowing the dangers of the bottomless swamp, rushed in and were sucked under. In this way, they all disappeared. This is the tradition, and it is a historical fact that the people of Agenebodie were never conquered by the Fulani.

The lake upon whose banks these refugees from Agenebodie found safety, contained a crocodile, which they worshipped and to whom they brought offerings.

The keeper of the crocodile acted as intermediary between the people and their deity, and when an offering had been made, would stand on the bank of the lake and call to its sacred occupant to come and eat.

It was a long and arduous experience crossing the swamp on flimsy bamboos, exposed to the risk of slipping into the engulfing mire, but at length solid ground was again reached on the banks of the lake, and I questioned the custodian of the crocodile, "Why do you call this lake sacred?" And he replied, "Because the sacred crocodile lives there." I then asked, "Tell me, why is the crocodile sacred?" And he said, "Because the lake is sacred," and that was as far as I could get. I thought he sensed my disappointment, for he now quickly volunteered to summon the crocodile and said, "If I call the crocodile, he will come and eat"; so I agreed that I should like him to call his charge for my inspection and, looking out across the water, he exclaimed in a loud voice, "Isamore, Isamore, Isamore, je-je," meaning, "Come and eat, come and eat, come and eat quick!" I watched this serious looking fellow intently calling on their deity for my entertainment, and as nothing apparently happened, urged him to call louder, and yet again. I then began to chide him, but he assured me that the crocodile was now looking, and pointed to a distant speck on the water, which might have been anything. He then continued to call, and after a long while I said to him, "Why does not the crocodile come?" He thereupon turned to me quite solemnly and said something like this, which was trans-

lated by my interpreter into the colloquial pigeon English: "This crocodile be no fool. He savvy too much. You got no goat for him to eat, so he be not fit to come." This African wit, like all of his kind, was undefeatable.

Chapter XXII

TREKKING IN THE TROPICS

TREKKING in the Tropics is no longer the arduous business that it once was. In the early days of exploration and travel journeys were made on foot at considerable risk and at the mercy of the tropic sun and torrential rains. When one looks back on what our fathers accomplished, handicapped as they were by lack of motor transport, their endurance seems astonishing. Even on foot they did much, but their journeys were of necessity restricted on account of time and cost. Later the bicycle was some saving in certain types of country, but so long as loads had to be carried on the heads of labourers, the distance travelled was restricted to the marching distance of the carriers. But whether on foot or on bicycle, the person trekking in the tropics was limited to his own power which was often reduced by the exacting climate.

The coming of the light car and motor transport has now largely solved the problem of transport and today, thanks to the opening up of new roads, the explorer, settler, trader, or Government official can travel in comparative comfort in spite of the exigencies of the climate.

The record of British colonization of Equatorial Africa has been that of peaceful penetration; and when its history comes to be recorded, we shall learn how much of its success in recent years has been due to the internal combustion engine. Although development had taken place up rivers, it was essentially restricted. The hinterland was never easily accessible until the coming of the motor car. Today, improved roads have opened up to the motorist vast tracts of territory which were previously inaccessible except to a few.

At first sight the motor car called forth wonderment in peoples who had not then reached the wheel-barrow stage, but in the course of a short decade the use of the motor car has become almost universal.

In pursuance of my work it was the exception rather than the rule for me to use the best roads, and the light car with which I replaced my motorcycle, proved itself invaluable in trail-breaking. So fine was its performance, and so entirely useful to me in my work, that it gives me pleasure to state my satisfaction in the ownership of a car that has successfully met a variety of arduous tests. In the course of a ten thousand mile trek I was not once delayed through breakdown or defect in its mechanical response to the calls made upon it. Throughout the whole of my journeys the only damage other than that necessitating tire replacement, was a bent starting-handle and a few dents to a wing. The bent starting-handle was the result of a spectacular drop, which, although unsought for, actually provided a test

for the chassis and springs, which could not be beaten, even though it had been carefully devised.

The sight of my Morris taking a drop over a steep embankment and landing fifteen feet below in thick bush would have gladdened the eyes of a cinematographer, but the actual experience was an ordeal both for man and car alike.

I was driving from Lagos to Ibadan in the Southern Provinces of Nigeria, and when rounding a sharp bend on the side of a hill, I met a loaded lorry coming towards me, completely out of control. To my right was a steep drop over an embankment, and to my left, the side of a hill, and, at that portion of the road, it was barely over the width of a single track, so that it was impossible for me to pull to one side. It seemed that nothing could prevent a head-on crash. An instant's delay meant positive disaster, so that almost automatically I decided to take the leap over the sheer edge, and dropped into thick bush fifteen feet below the level of the trail. The African Jehu whose lorry had got out of control, little dreamed as he dashed on down the hill, that he, by necessitating the leap of my car over the bank, had created so remarkable an opportunity for proving its worth. It would be impossible to devise a more severe test, and if I had been asked beforehand to make such a dive, nothing would have induced me to attempt it.

As I was unhurt, and my car intact, I look back upon that adventure with gratification, because it gave me confidence in my car, that it would carry me through

the most arduous treks which would be inevitable in my pioneer work.

After having cut away the bush to make a path by which to enable me to extract the car, I found, to my pleasure that the engine was in order, and the car undamaged, except for a bent starting-handle. So with little delay, and the help of friendly villagers from a couple of miles away, I was able to bring the car up the bank, a gradient of one in three, on its own power.

It was a surprise to me, and a source of wonderment to those around me who had witnessed the performance of the car. The story spread throughout the provinces, and from then on, in the course of my journeys, there were many inquiries as to the stunts of the car.

The model I chose for my big trek was the ordinary standard four-seater Morris-Cowley, which was used, not only to convey myself and servants, but also for carrying camp kit, supplies of food and petrol, and instruments needed in my work, in all weathers. Experience proved that when it was more heavily loaded, the greater was the comfort in going over the rough.

Throughout the whole of my tour of service this little car was in constant use when making surveys and cutting trails through the denser parts of the rain forest. During this time she was exposed to all weathers night and day, and even when under a temporary roof shelter, was subjected to the force of tornadoes and driving rain.

In the first four thousand miles of use registered, with the exception of removing the speed-washer at seven

hundred and fifty miles, there was nothing done to the engine. At this mileage, four thousand, I considered it necessary to remove the plugs and decarbonize.

In the course of one of my tours, I conducted a party of Chiefs and Headmen to the Calabar Exhibition across the Niger. A convoy of Morris cars and vans carried the Chiefs, their retinues and exhibits. I thoroughly enjoyed the keen and intelligent interest in the driving of my car shown by the Ashodi of Benin, who was my passenger. The readiness of the Chiefs and big-men in adapting themselves to the use of the motor is shown in their increasing tendency to demand a high-powered car which will become practicable as the roads improve. Already, during the past few years, thanks to the Public Works Department, and to the policy of the Government, there have been great developments in road-improvement and construction. This is especially notable on the road from Lagos to Ibadan and long stretches of it are now equal to any first-class roads in other parts of the world. Incidentally, the bend on the side of the hill and scene of my adventure has been more than trebled in width, and now there is a splendid sweep upon which one can speed without fear of mishap.

Occasionally during the tornado season in the rain forest region, one comes across a fallen tree, but delays need not be long, for no motorist in these parts would be without a sharp axe, and when a number of sturdy tribesmen arrive on the scene, little time is lost in cutting a way through.

In some parts of Africa travel is very difficult, if not impossible, during the rains, but this by no means applies to the whole, and then only for a short season during the rains. In Nigeria, for instance, with a light car, one can trek right through the rains. In the case of newly-cut trails, these are improved and hardened by the heavy downpour, and in consequence going is made easier. It is safe to say that on laterite and sandy soils the roads are equally good all the year round. On the low-lying grounds where almost pure sand is met with, the roads are even heavier in the dry season—though here I might mention that in such country the large tyre which is usually fitted to the Morris is an improvement on the old high pressure type. I have heard it argued that the semi-low-pressure provides a larger vulnerable surface, and many people still prefer the high-pressure car for African travel, although latterly I invariably used the former.

One of the most thrilling experiences I had was in the rain forests on the road from Satoba to Benin by the old trail by way of Agbor. I had paid out my labourers at the end of the week, and was hastening into Benin to meet members of the Colonial Office Commission who were then visiting the Southern Provinces. In spite of a severe tornado, I started out and was making a short cut by a narrow forest trail. I was speeding along as fast as the bends would permit, when I saw just ahead of me a tall forest tree falling across my path. I was travelling too fast to pull up, and so I stepped on the gas and

just got under in time for the forest giant to crash down across the trail behind me. I quickly pulled up and got out of my car, thankful to be alive; and after saying a heartfelt "Te Deum," I proceeded on my journey, only to find round the next bend a still greater obstacle in the shape of a larger tree, which had also fallen directly across my trail. This is the only time that I was actually trapped between two trees, and my thankfulness at having escaped alive prevented my annoyance at not being able to meet my friends from England.

In the African Tropics the hinterland is rapidly being opened up and bringing prosperity through opportunities for the transportation of raw products to the coast. Automatically, cars that prove their merit will be in increasing demand, not only by the Chiefs and Headmen, but by others as they prosper. The primitiveness of the African's environment does not prevent his discriminating most wisely and when once convinced of the integrity and service rendered his natural conservatism makes him loath to change.

Indeed the motor car is having a civilizing influence in many instances, which missionaries, Government Officials and others have failed to instil. It is not too much to say that rapid transport is one of the finest blessings which the white man has brought to the African race.

A time is coming when every Chief and person of standing in a village will expect to maintain a car as a matter of course. History is repeating itself in Africa, and motoring must assuredly pass through the phases

with the indigenous peoples that it has elsewhere. It behooves us, therefore, to give them of our best.

Whatever the season of the year, whether in torrential rains or glaring sun, in towns or trekking along tropic trails, one's car is a means of protection, and that not only from trying elements. It has largely eliminated human strain, and enabled long journeys to be accomplished often in less numbers of days than it took months before. It is a fact that the man without a car in Africa today, whether he be native or European, in Government employ or prospecting in business, is severely handicapped. This is generally recognized by all who have had first-hand trekking in the Tropics.

Chapter XXIII

A LESSON FROM THE ELEPHANTS

THE forests of Kenya cover about four thousand square miles. They include extensive areas of bamboo, which only grows in commercial quantities in the Highlands. The forests naturally divide themselves into the Highland areas, which are sub-tropical, and the coast or lowland areas, which are all entirely tropical. There are also large mangrove forests along the tidal creeks of the coast.

The Highlands of Kenya may not for a long time export timber in bulk owing to the lack of rivers large enough for floating the logs, and the present high cost of freightage over a long railway journey, but manufactured timber may be economically exported. Indeed, attention should be paid to such varieties as are available and might be used for special purposes. As the old sources of well-known woods of high commercial value become exhausted, fresh means of supply are sought. In some cases where the original species are being depleted or at present come from uncertain sources, suitable substitutes are often found which serve equally well, provided that they correspond in weight and texture

and possess the same mechanical properties. The colour is not always such an important factor.

The wood originally used in the manufacture of the popular cedar pencil was Juniperus virginiana, an American species of juniper; this is the well-known pencil cedar of commerce. Many substitutes outside the juniper family have been tried, but invariably manufacturers, for preference, fall back on the so-called pencil cedar. Until recently the bulk of this has been provided by America, but that source of supply is dwindling, and today there is little indeed of the original juniper available. There is, however, an excellent substitute for this in the East African pencil cedar, Juniperus procera, locally known as Mutarakwa. This is to be found in most of the Highland forests of East Africa and is shipped from Mombasa. It is a handsome reddish brown soft wood with a fine even grain, it saws, planes, and works up well, is rather brittle, very fissile and, like the original pencil cedar, it is aromatic. But above all, it possesses that quality known to the pencil making trade as "whittling," which is indispensable, both to the pencil maker and pencil user.

Juniperus procera is said by some to be somewhat harder than Juniperus virginiana, but this quality varies not so much according to species, but rather depends upon the manner of growth, soil, situation, not to mention seasoning and many other factors which cannot be gone into here. Although the total area covered by this species in East Africa is not even approximately known,

from personal observation I should estimate that there are sufficient supplies available to keep up a sustained export in pencil slats until such time as forests which might now be planted will be ready for exploitation, say forty years. Unfortunately, owing to the ravages of a fungus, Fomes uniperinus, which has not yet been brought under control, logs of the East African pencil cedar are often hollow, or contain pockets which have rotted out; accordingly large dimensions of timber are more scarce than they would otherwise be. Apart from the consequent wastage this is not a serious drawback, for the most convenient sizes for export are either slats or billets.

When in charge of the Forestry Headquarters in Nairobi soon after my arival in the Colony, specimens of this wood were sent to the School of Forestry, Cambridge, and it was favourably reported upon. Keen interest was aroused both in England and America, and today thousands of slats and billets are being exported and a considerable revenue to the colony is being derived from this source.

A parallel case is that of the Boxwood, which has been, and still is, popular for turnery purposes, and the making of printers' dyes. There is a shortage of the supplies of this wood from the old sources, and we might well find a substitute for this amongst the Coast woods. Again, Ebony has its well-known uses and the demand for this never flags. There is a substitute for this also in the well-known African Blackwood or Kenya Ebony.

Although this is not the true Ebony, botanically speaking, nevertheless it is equally good and Herbert Stone, the well-known timber expert, when he examined my specimen, declared that in some ways it was preferable to true ebony, "for it took a natural polish from the tools."

It is difficult for me to select from the many valuable species a few that I may discuss for the interest of forest enthusiasts and other serious readers, but I will mention a few which are of the greatest importance.

Among those that are available for export is Podocarpus gracilior, it is known locally as Musengera, or to the trade as Podo. It is a soft light yellow wood, with fine even grain, saws and planes well, is not very fissile, takes nails well, and polishes and works easily. It is moderately durable and seasons in a fair manner. Locally it is in great demand for all kinds of building and interior work, such as flooring or ceiling boards, but will be interesting to importers as a furniture wood. It is obtainable in lengths up to twenty-five feet squaring eighteen inches to twenty-four inches. Podocarpus milianjianus is another variety also known to the trade as Podo, but it is obtainable in rather smaller sizes.

Dombeya mastersii, known locally and to the trade as Mukao, is a timber worthy of note, which up to the present has been overlooked. Much of this is sold locally under the name Podo, and although it may not be quite so durable, it is easy to work, seasons well, and in certain respects may be preferred to the afore-

mentioned Podo. If converted on the quarter, the radial surface often shows a delicate and very attractive figure, similar to that of the French plane.

Ocotea usambarensis, known locally and to the trade as Muzaiti, is to be found on the Kikuyu escarpment and in the forests on the southern slopes of Mount Kenya, also in Tanganyika territory. This may be compared with teak; it polishes, saws and planes well, its colour is light yellowish-brown when freshly cut, aging to a handsome dark brown. The tree is large and capable of giving balks up to thirty feet, squaring twenty inches to twenty-five inches. The Uganda Railway Locomotive Department reported that it was far the best of the local timbers and that there was no reason why it should not be used for coach building. They used it for a great variety of work, such as coach pillars, panels, stretcher poles, and have not yet had any cause for complaint.

I am particularly interested in Olea chrysophlla, locally known as Mutamayu, or the Brown Olive. It was under this species that I found valuable natural regeneration of Mutarakwa, the pencil Cedar, for it was in this tree that the pigeons perch at night and by masticating the seed make it possible for it to germinate. The Brown Olive I regret to say is largely used for fuel, although it might be utilized for turnery and many other purposes. It is very hard and heavy, light brown in colour when freshly cut, darkening with age and has a characteristic olive grain.

Canoe Travel in Africa

These are but a few of the many Highland timbers which might be economically imported into America for special purposes as soon as their value becomes known or as existing supplies of similar timbers from other sources become exhausted.

Although the coast forests are not so extensive as those of the Highlands, they may be of even greater interests to the intending importer of African woods, for here there are several forests within easy access of the sea. Many species could be readily exploited by the local Fundis, native sawers, and transported by dhow along the coast to the main ports. It might even be possible to re-open export trade along the old routes by dhow from Arabia, Persia and the Malabar Coast.

One of the most interesting coast woods of high value is Dalburgia melanoxylon, locally known as M'pingo. This is an excellent substitute for ebony. Following my suggestion it has been called, "African Blackwood" and has met with some success in Europe and America.

Apart from the land forests, there are very extensive mangrove forests along the tidal creeks. Mangrove flourishes between high and low water, and if seed trees are left, readily regenerates itself from embryo plants which drop from the branches of the mother trees. The chief species is known locally as M'koko, this is Rhizophora mucronata. It affords the main supply of building material and fuel for the coast towns and villages. A very considerable quantity of this species is exported in the form of borities, poles, annually to Arabia and

Persia. There are many other varieties which I was able to identify with the kind assistance Dr. E. H. Wilson of the Arnold Arboretum when he stayed with me at Mombasa. I shall always look back with pleasure, even to my expeditions in the most unattractive mangrove swamps, when accompanied by Ernest Wilson. He was a great Man of the Trees and his vast knowledge was a constant source of admiration to me. His tragic death was indirectly due to his personal sacrifice in his work and in him America, and indeed the world, has lost a great tree lover.

At present all too little is known of the forest resources of Kenya Colony. This knowledge is not only lacking to importers of other countries, but also locally. As an example of the ignorance which exists, I may cite a case of the Government harbour at Kilindini, for which foreign woods were imported, while a little way up the coast suitable timbers were available. Again up in the Highlands a government railway was actually laid through a timber forest on steel sleepers through a creosoting yard which had been specially constructed to treat timber sleepers, of which a large number were available. One day on Safari on the Mara River my attention was drawn to the remains of a bridge that had been constructed from Baltic pine. This wood had first been shipped to London and then by devious route to Kilindini, the port of Kenya, from there it had been shipped by the Uganda Railway up the line to Kijabe, some four hundred miles or more, from here it was car-

ried on the heads of porters by easy stages for another hundred miles. Three months after the bridge had been built from it, dry rot set in and a few months later what was left over from the dry rot and the subsequent attacks by termites was cleaned up by a herd of elephants who thoroughly enjoyed themselves, pulling the rest of it to pieces. All the time, within a few hundred yards, there had been available a sufficient supply of termite-proof trees which would have provided an excellent trestle bridge well serving the purpose required and would not have attracted the destructive instincts of the playful herd of elephants. Along the river a little farther, my friend, Rupert Hempsted, Officer Commanding the Masai Reserve, had successfully erected trestle bridges as described which must have evidently conformed to the aesthetic taste of the herd and in other ways met with their approval, for these bridges still stand as evidence of what can be done with local timber products.

Although East Africa may not for a long time appreciably affect the world's timber supply, the forests will more and more become a vital factor in the future of the Colony itself. The proportion of forests to the whole area of the Colony is all too small, and if there is to be a continuous supply of timber available it will be necessary to take steps to increase the productivity of the existing forests by proper scientific management; above all, scientific research is urgently needed, whether from the point of view of perpetuating the existing

forests or that of possible future commercial exploitation. As better methods of utilization are adopted there is no reason why Kenya should not supply a valuable, if not bulky, quota to the world market.

Chapter XXIV

IN THE ABERDARES

TREES are needed in the world today as never before. For every substitute for wood there are about ten new uses found for forest products. The tremendous material strides made by Western Civilization during the last few decades, have been largely responsible for bringing about a shortage of wood. The virgin forests of the world are no longer adequate for supplying the ever increasing demands made upon them. Great inroads are being made to supply the growing need for wood pulp for newsprint and other purposes. One metropolitan edition requires over twenty acres of forest every time it is printed. Another middle west journal requires sixty acres a week. Already Canada's biggest customer, the United States, is being driven back on other countries for supplies.

The United States and Canada, with one-twelfth the world's population, use one-half the forest products of the world. The United States utilizes or in other ways accounts for the consumption of four and a half times as much wood as is grown every year.

The amount of forest products that any country uses is some indication of its civilization. On the Northern

American continent the standard of living is higher than in many other countries, and therefore the demands made upon the forests are proportionately greater. This is the age of paper. Our civilization is built largely upon the use of paper and this is one of the main products of the forest.

Although considerable attention is now, at length, being given to reafforestation, it will be many years before the trees which are now planted become mature and ready for utilization in the form of pulp.

To provide for the interim period it may be necessary to seek for substitutes for the manufacture of paper pulp from other sources. Such substitutes will generally be found to be dearer. Take for example Savanna Grass. A large area has to be covered to obtain any considerable bulk. It has to be baled and it cannot be floated down rivers, for it would rot in transit. It therefore has to be sent by rail which is more costly. Trees are the ideal material from which to make paper. They grow high and considerable bulk can be obtained over a small area. The fibres of the tree are packed tightly by nature and when the tree is felled it can be floated at little cost to the pulping mill. There may, however, be an interim period, in which it will be necessary to seek for substitutes to be used in the manufacture of paper-pulp. The uses for paper-pulp are rapidly increasing. As an example of their wide range one might cite the increasing popularity of beaver-board, which finds it way into the manufacture of a very wide range of articles, from

The Men of the Trees Challenge Shield

an omnibus to a saucepan, or from the lining of the walls of a departmental store to a hat-box. We are even clothed in the products of the forest today. Celanese, which lasts longer than silk, is made from spruce, and a good spruce stocking will outlast a silk one, for it is not so liable to ladder. Besides there is a growing shortage of pulp for the manufacture of paper proper, and with the continually increasing demand resulting from the larger circulation of newspapers, journals and books in many countries, this shortage may become acute.

At present the great bulk of this raw material has to come from outside the States. In Arundinaria alpina, the bamboo of Kenya Colony, we have an excellent substitute for wood in the manufacture of the better qualities of paper-pulp. There are vast tracts in the Highlands of Kenya covered with this species, which is really a giant grass with a hollow culm and solid joints, or nodes. The growth is very rapid, and the shoot almost reaches its full thickness immediately on emerging from the ground. It grows very rapidly and reaches its full height in about three months.

Unlike any other species of bamboo, which grow in clumps, the Arundinaria alpina covers the ground in a continuous manner. About three-quarters of the lower portion of the culm is unbranched. When the branches are fully developed the culm has reached maturity. Certain species of bamboo flower gregariously over extensive areas at long intervals of time—variously stated at from thirty-five to fifty years. This is the case in some

parts of India where, having flowered over the whole area, the old culms die, and in the course of a few years a new generation springs up from seed and takes the place of the old culms once more. Such an occurrence might upset the working of a pulp factory, and it is reasonable to inquire whether there is any chance of such gregarious flowering in the bamboo of the Kenya Highlands. Having visited all the main bamboo forests of the Highlands, I have come to the conclusion that there is little risk on this account, as the largest area of this Arundinaria that I have seen flowering simultaneously was about four acres in extent. Here, then, is an advantage over the bamboo grown in India, where the seed year involves a large area, holding up supplies for a considerable period. Areas affected by the seedling of the Kenya species are so small that as an adverse factor they need hardly be given consideration.

In the absence of a proper survey it is very difficult to estimate accurately the vast areas of bamboo forests in the Highlands of British East Africa, which may amount to nearly a million acres. Many of these forests are at present quite inaccessible owing to lack of railways and navigable rivers, but of the more accessible areas I estimate that there are eighty thousand acres. With the further extension of railways which may be possible in the near future, an area of similar extent will become available.

The most extensive areas are found at an altitude ranging from seventy-five hundred to ten thousand feet.

The rainfall over these forests is generally high, and there is always plenty of water available. Where the bamboo forest joins the hardwood forests it would seem that there has been a battle of species, the bamboo striving to suppress the timber forests. If the history of the past were known we might find that this conflict has been going on for many generations, sometimes one gaining ground, sometimes the other. For the greater part it would seem that the tendency has been for the bamboo, Arundinaria, to spread, though in some cases it has found an equal in a timber from Mukeo, Dombeya Mastersii.

Surrounding the Aberdare Range roughly in the form of an ellipse with a large bulge to the northeast is a belt of bamboo ranging from four to eight miles in width. As one climbs over an altitude of seventy-five hundred feet there is a tendency for the high forest to end and the bamboo forest to begin. For about one mile the forest is mixed with bamboo, but as the bamboo region is penetrated few but suppressed and partially suppressed trees are found. In some places it is possible to travel for a whole day without seeing anything but bamboo. In these regions progress is slow and if it were not for the paths trampled by elephants the difficulty of travel away from the existing roads would be intensified. It was just off the main road running west from Nyeri that I found some of the largest bamboos in the Highlands. Many of the culms were sixty feet in height with a diameter up to five inches. During my tour of

inspection I crossed the Aberdares four times in different places and always found this same great belt circling the open moorlands. With the extension of the railway to Nyeri this great belt of bamboo could be tapped in several places. Throughout many parts of these areas there is water in abundance and fuel is available in sufficient quantities.

Yet another extensive area is approached from Njuro on the Mau escarpment. Here the bamboo is generally smaller but there is a tendency for the walls of the culms to be slightly thicker, and at the same time the yield in the number of culms to the acre is greater. An excellent road has been constructed through a part of this forest and taps an extensive area.

Much farther on and inaccessible at present is a huge forest of bamboo of high quality. Here I travelled for three days along elephant trails, constantly through bamboo. The potentialities of these regions almost surpass comprehension. The key to the situation is the question of transport, for only by the extension of railways can these resources be turned to account.

One of the most promising areas in the Colony is the Kikuyu escarpment. Here the bamboo could be readily exploited as it is within easy reach of the railway and everywhere there is a certain amount of forest growing either near the bamboo areas but at a slightly lower elevation, or scattered about in the bamboo forest proper. The water supply, if not abundant, is sufficient to meet all requirements. Where the culms are smaller in size the

African Boy with Ivory Bangles

quantity is made up by the larger number of culms found to the acre.

In many of the areas that I visited I felled experimental plots to ascertain the number of culms to the acre and estimate yield. Care was taken to select only typical plots for the purpose of measurement and felling and in cases where a particularly good stand had been chosen, another stand of inferior type was selected to balance results, so that if the whole be totalled, it should give a fair estimate of the yield over the main area. During two months' safari, it is estimated that over a thousand miles were traversed, while twenty thousand culms were felled. My experience leads me to estimate that the average number of serviceable culms to the acre is about forty-five hundred with a maximum number of seventy-five hundred, while the average useful length of culms is about fifty feet with a girth breast high of nine inches, or average diameter of two feet five inches, maximum, four feet five inches. The number of air dry culms to the ton is in the neighbourhood of one hundred and ten. My observations lead me to believe that clear felling will improve the stand of culms if not repeated too frequently. From three to five years may be the most economic period for felling and even at this it will be readily seen that the yield of pulp from bamboo forests will be many times more than that from a timber forest, which may have taken a hundred and fifty years to mature.

Laboratory experiment gave thirty-seven per cent

of air dry pulp when treated with a solution of caustic soda. This pulp bleached well and yielded white paper of good quality. The yield, including loading and size was forty-one and twenty-three per cent of the weight of the bamboos, which is considered satisfactory.

The Kenya bamboo has a distinct advantage over the Indian bamboo in that the knots are soft and do not require to be removed before pulping. This means a saving not only of labour, but also of material.

For the manufacture of air dry pulp other raw materials in the form of fuel and soda and lime are required. Wood is available in sufficient quantities in near enough proximity to the bamboo, while soda and limestone are to be found in the Colony.

Freight of pulp on the Uganda Railway from the area indicated would be seven and a half dollars per ton, provided pulp is compressed to twenty-five pounds or over per cubic foot, and packed in bales so as to enable eight tons to be loaded into a ten ton truck, but it is not only from the export point of view that the exploitation of the bamboo forests is of interest. There are numbers of local industries which might be begun if once pulp were available, besides the fact that Africa could be made self-supporting from the point of view of paper for all purposes.

The areas fitted for exploitation are all in the Highlands where the climate is healthy and where Europeans and Americans can live with their families and enjoy the ordinary amenities of life. It is not often realized

that here is a region which although situated right on the Equator is sufficiently cold to make it necessary to have a fire every night. Above the bamboo regions are open moorlands and towering over all is the snow-capped mountain of Kenya. There is no reason whatever why these vast bamboo forests should not be economically exploited. So long as they are untouched the natural decay keeps pace with the growth except on the outskirts in the lower regions where this giant grass is gradually suppressing the more valuable virgin forest.

Chapter XXV

SOME FOREST SECRETS

THE prosperity of any country in Equatorial Africa largely depends upon its forest resources. This is a fact which slowly but surely is beginning to be recognized by Governments. The continuance and increase of the forests is essential for the well-being of everybody. The forest problem requires concerted action by the respective Forest Departments, the Administration, the Settlers and the Natives.

It requires a clear definition of public and private responsibilities as to land suitable for growing timber with an equitable sharing of the cost. There is no phase of our perpetual supply of fuel and timbers that cannot be met by simple and obvious measures once the constructive effort and capacity for organized cooperation of the settlers and natives have been put before them.

I cannot do better than to quote Sir. F. D. Lugard, who, in "The Dual Magnate," says "The preservation and control of the forests of Africa is of vital and economic importance. . . . The Forest Officer is concerned both with the afforestation of existing forests and their 'organization,' so that different age classes of

trees are evenly graded and occupy equal areas and the forest may return its full annual interest on the timber-producing capital."

The part taken by the Colonial Governments in the preservation of the Forests consists mainly in the administration by the Forestry Departments of large Forest reserves, in which no timber can be cut without a government permit. To illustrate the multiplicity of the ways in which the forests affect the prosperity of the country, I mention seven of the purposes which the forest reserves are intended to achieve, namely, to supply forest produce continually for local use (railways, buildings and native requirements) and for export and to add to revenue; to conserve the water supply and control the "run-off" from the hills, thus regulating waterfalls for power, maintaining irrigation and the flow of springs, ensuring a higher level in the rivers in the dry season and preventing floods which deposit large quantities of barren soil in the valleys and ruin them for agriculture; to increase the humidity of the atmosphere, and so promote the growth of crops. Experiments here and abroad prove that forests increase rainfall by twenty-eight per cent; preventing land slides and erosion, silting of rivers and shifting sands; they also act as barriers against the spread of insect and fungoid pests from one cultivated area to another; they conserve and improve the qualities of the soil, until required for cultivation by the increase of the population while providing a sanctuary for game and grazing in time of famine.

Outside the forest reserves it is very important that all land-owners should give heed to the rapid disappearance of forest trees in the neighbourhood of their farms and should do their part, in however small a way, to offset the scarcity of trees. There are few farms without some corner where crops cannot be raised, but which is most suitable for trees, whether ravine or untillable land.

In Kenya particularly a comparatively early return could be realized. Then too, the planter could reap the benefit in the form of conservation of rainfall, and could indirectly assist his other crops, be they coffee or grain.

If the forests in any part of Africa are allowed to be permanently destroyed, a bitter reckoning will have to be faced. Already in some parts of the Native Reserves there is a fuel famine.

The subject must be approached from a scientific standpoint and advantage taken of the lessons learnt by others. It is true that there are many very excellent Foresters whose only school has been the lonely woodlands, but their ability is, nevertheless, the result of observation—an unconscious scientific study. It is equally true that without knowledge of local conditions any amount of scientific training cannot be well applied. Unlike the agricultural crop, which, if a failure, can be replaced the next year by something else, the forest crop has to stand for many years, and its speedy renewal becomes

Lumbwa Girls, in the Highlands of Kenya

quite impossible—human life is far too short compared with that of a tree.

The pioneers in forestry have had, from lack of all sources of information, to learn by costly experiment and failure, but now the planting owners of today can easily avoid the unfortunate errors made by the pioneers. The forestry service is for the benefit of all.

The economic importance of forests and the desirability of putting down a certain area of land in trees, may be considered under two headings, the effects of woodland areas upon local climatic conditions and upon the locality and the financial return.

The existence of areas of woodlands has an appreciable effect upon the temperature of the atmosphere within each area. The average temperature throughout the year is less within woodlands than in the open and extremes of heat and cold are lessened. Within woodland areas the night temperature is practically always warmer, and never falls so low as the temperature in the open. During the day time the average atmospheric temperature within woodlands is always less than the average temperature in the open.

The reason for these differences can be ascribed to the fact that the canopy of the trees prevents the soil from being rapidly warmed by the sun's rays; and also when once the soil has become warmed, the canopy of the trees prevents any rapid radiation of heat from the soil. The influence of the forest will be due mainly to its

action as a cover protecting the soil and air against isolation and against winds. That the nature of a cover, its density, thickness and proper position, has everything to do with the amount of protection it affords, everybody will admit. A mosquito net is a cover; so is a linen sheet or a woolen blanket, yet the protection they afford is different in degree and may be practically negligible when the wind blows. It will also be conceded that it makes all the difference whether the cover be placed before or behind the wind. Just so with the influence of the Forest; it makes all the difference whether we have to do with a dense or open, young low, or an old high growth, or what position it occupies with reference to other climatic conditions.

Soil moisture is due to canopy provided by the close crowded branches and also to the dead leaves below. It is an undisputed fact that the flow of water in most of the rivers, and in many cases from springs, and the height of the sub-soil water, have been most seriously reduced by the removal of the forests, and deforestation is evidently a cause by which our water supply suffers most severely.

As regards the moisture in the atmosphere, whether forest areas are, or are not, capable of appreciably increasing rain within their limits or upon neighbouring ground, is still a matter of dispute, and the complexity of the factors which must enter into the discussion has so far baffled solution based upon definite and strictly scientific observation. Yet new evidence is accumulat-

ing which shows they may increase at least the amount of precipitation over their own immediate neighbourhood.

Woodlands are often of the greatest value in exposed locations as affording shelter and protection from storms to agricultural crops and plantations.

Generally trees improve soil; an unproductive area of land which is incapable of bearing an agricultural crop may sometimes be made fertile by planting trees.

The value of the forests in assisting agriculture, can never be overrated; the one is the complement of the other.

It is often found that in virgin forests there is no increase, the annual growth being about balanced by the annual decay.

In dealing with this subject in my research, I was at first greatly handicapped because so little information about annual wood increment of the trees was available and I was forced to rely largely upon data obtained in other countries where the forests have been under close observation for many years.

In South Africa and elsewhere it has been proved by long experience that more timber is grown per acre and that growth is much more rapid, on land where some attention is given to systematic forestry than on that which is left to itself. This would only appear to be reasonable when we consider that much of the energy of trees may be expended in fierce competition with neighbours which may weaken them all and perhaps bring

about unhealthy conditions and that virgin forest land is often stocked with trees, many of which are decayed or defective, and often with those that are not the most profitable kinds to grow.

In the cultivated forests, unnecessary crowding is prevented by judicious thinning and the land is kept evenly and completely stocked with the most profitable kinds.

Regeneration or the renewal of forest trees on the land may either be by natural seeding, artificial seeding, sprouts and suckers known as coppice, planting seedlings or planting cuttings.

The method of regeneration best adapted for one place may not at all be fitted for another under different conditions. In Europe natural regeneration by seed is often found to be the most economic method. It can be assisted by breaking the soil surface in good seed years. The methods adopted to secure natural regeneration by seed may be divided into three systems, each of which may be adapted to some special conditions. These are known as the selection method, the strip method and the group method.

The selection method should be by the cutting out of mature and the removal of inferior trees to make room for the better trees. On the other hand the strip method is that which may be applied to the system where the trees are removed in narrow strips across which the older trees can easily scatter their seeds. Care is taken to

clear the strips on the opposite side of the seed trees to the prevailing wind. The group method consists of cutting strips successively on the inside of certain groups. We can begin with one group or several groups. In my opinion this is the best method for use, whether we regard it from the point of view of the forester or sawmiller. The group method is a combination of the selection method and clear-felling.

In this case an area is selected rather than an individual tree and this area is clear-felled. Where squatters are to be employed for replanting the size of the area selected must be controlled by two factors; the area capable of being replanted at once and the capacity of the mill which is converting the timber from the given area.

The advantages of this method are quite obvious. In the first place this method does not destroy the forest as a catchment area. Secondly, the young trees can grow up under the protection of the older ones.

From the miller's point of view the method has all the advantages of clear-felling. The area to be cut over each year can be increased in proportion to the capacity of the mill. The nurseries will be getting better organized year by year and will be capable of raising trees for planting larger areas.

Regeneration by artificial seeding, under certain conditions, may be desirable in the forest, but owing to the density of undergrowth, is not generally practicable. Seeds may be sown in sites amongst the native crops,

but constant supervision is necessary to prevent the squatters from "jembying" them up when they clear the shambas.[1]

Regeneration by planting seedlings is the most economical way of securing a stock of trees on the land. Under the conditions which frequently prevail on cut-over land there is very little chance for natural or artificial regeneration of desirable kinds by seed, owing to the fact that all the seed producing trees were cut out when the land was logged, or have since been destroyed by fire and the ground covered by a growth of brushwood and inferior trees.

With the employment of squatters such planting can be done at a minimum cost of about two dollars per acre. It is not too much to expect that a gang of ten trained natives will plant five thousand seedlings in a day of ten hours.

There are few useful timber trees that can be grown in general practice from cuttings. There are some, however, that can be raised by this means when seed is not available.

In order to get the best growth by means of regeneration by sprouts and suckers, the trees should be cut close to the ground and the stumps left highest in the centre, so that they will tend to shed water and not rot.

Thinning is the most important part of the forester's art in securing good timber and in reproducing the forest. Trees must be crowded in their early stages, so

[1] Shambas—farms.

as to promote straight growth and stems free from branches up to a useful timber height. When this crowding has gone far enough, the less valuable and weaker trees should be removed to give the better trees sufficient room for their crowns to develop.

These remaining trees in the course of a few years will again crowd one another too severely and this process of removing poorer trees must then be repeated. In certain cases a percentage of suppressed trees are left to give covering to the soil and prevent the undergrowth from spoiling the forest floor.

Are the indigenous forests of Kenya worth perpetuating?

This is the question often asked by those who have the interests of the Colony at heart. Undoubtedly amongst the indigenous varieties there are very valuable timbers. Although timber in large bulk may never be exported, there are many varieties which are unique in their way, and grow only here. Many of these timbers might be utilized for special purposes on the European and American markets as a substitute for well-known woods in which there will soon be a world shortage. As soon as it is known that Kenya is capable of supplying substitutes for these well-known and well-nigh indispensable woods, an export trade will be established.

Probably the immediate export trade of wood from Kenya Colony will be confined to the choicer varieties and manufactured timber, but it is essential to have a continuous supply to meet the increasing demand.

There is a danger that having established markets outside Kenya, the supply will become exhausted if steps are not taken to reproduce the virgin forests.

After my tour in the forests of Kenya, I spent my leave in the Mau, where I tried to learn more about the indigenous forests and the secret of their existence and reproduction. Here, at an altitude ranging from nine to ten thousand feet on the slopes of steep mountains and deep valley, is the domain of some of the best forests.

These forests have not been touched by man, and of late years have not suffered from fire. The lonely n'derobo forest dweller has done little or no damage. Here one can learn to the best advantage what has happened in those forests in the course of past centuries for our benefit and guidance today.

It has been suggested that these forests were exploited at a remote time and that the great old beautifully graded road which runs through them was used for the transport of Cedar logs northwards.

It would seem that a continuous battle of species had been in progress for centuries, first one species predominating for a time, only to be crowded out and replaced by another. The present forest is constituted mainly of the following trees, Cedar, Podo, Olive, Musharagi, with a few scattered Muchoroway. While on the outskirts of this forest bordering on the higher Bamboo forests may be found Mukeo looking at its best.

Although the tendency for the greater part is for the Bamboo to gain ground and suppress the neighbouring

forest, yet in Mukeo the Bamboo finds its equal. So far as I have been able to observe, Mukeo is the only species of timber which successfully combats the oncoming invasion of Bamboo. Sometimes, at certain altitudes, Mukeo is defeated, but generally it has the advantage and persists till the Bamboo is subjugated.

In this forest I saw the most perfect Cedars it has yet been my fortune to discover. Straight, clean boles, towering up to eighty feet or more in height, without a side branch, or a single flaw.

Would that it were possible to discover the secret of the past! We can but surmise what has happened to bring about conditions favourable to such perfected growth. Here there is a giant Cedar surrounded by Podo, Mueri and Olive, while close by is the bole of what remains of an old Musharagi, decayed and broken off twenty feet from the ground. The question we naturally ask is, what existed there before? Was some old Olive tree responsible for sheltering the pigeon that brought the Cedar seed from which sprang our giant of today?

That was the secret and its discovery was a source of real satisfaction, for natural regeneration of Cedar in a pure forest where the ground has not been either burnt over, the humus removed or the sub-soil exposed in some other way, simply does not exist. Strange though it may seem, despite the fact that thousands of seeds are lying under the mother trees, there are no seedlings.

The Olive provides the ideal humus for the germina-

tion of Cedar. It may be that the Olive has tapped the minerals needed by the Cedar, and by a natural process of absorption followed by leaf fall, has produced the ideal conditions.

There may be other possible solutions to the problems under discussion which will throw further light upon the subject. It is to be hoped that all those who live close to Nature and are able to observe, will record their observations for the benefit of others.

Chapter XXVI

TREE HERITAGE

PEOPLE often ask me, "What gave you a love for trees?" Or, "What took you to Africa?" These questions are better answered by giving my readers some insight into my personal background and early experience.

My father was a great tree lover and from his youth upwards devoted his life to the culture and care of trees. For many generations my family have been landowners in England. They sprang from Kentish stock, their lands in the first place being granted to them by Henry I. One of my ancestors had a remarkable record, being Lord Chancellor of England during three successive reigns. The family estate was lost when a later ancestor stood surety for his wife's brother, and was thrown into a debtors' prison, where he wrote Baker's Chronicles of England, dedicated to Charles II, which was the recognized standard work for over a century. In addition to his monumental history he wrote a book on the Psalms which was frequently quoted by Spurgeon, the well known Evangelical Preacher who referred to the writer as brave Sir Richard, Knight of the Flowing Pen.

My great-uncle, another Richard Baker, after having

coached his younger brothers for Cambridge, went in for farming on commercial lines, much to the disgust of his *very respectable family*. His father was Rector of Botley in Hampshire, and it was there he had caught the love of the soil when farming the Rectory Glebelands. Tired of family opposition to the work he loved, he went off to Canada, where he cleared the bush and shot the bear. This was in the early days, over a century ago. His nearest neighbour was seven miles away and on Sunday afternoons his only entertainment was to ride over and call on him. His letters home to my grandmother were full of the adventures of a pioneer, and as a great treat when, at the age of ten, I had been a good boy, on Sunday afternoons my father used to read me letters which his mother had read to him when he was twelve. Many of these letters were full of religious sentiment and of little interest to a small boy of ten, but patiently I listened to my father's reading of this old time settler's dealings with the Almighty, because every now and again there would be some spicy story about bears. There was one such story which specially impressed itself on my childish mind. His neighbour had been aroused in the night by a terrific noise coming from the barnyard. He got up, pulled his sheepskin coat over his nightshirt, went out and found a big brown bear trying to lift the fatted hog over the sty. He had no rifle, but picked up the nearest weapon, which was a spade. Armed only with this agricultural implement, he tackled the bear, with the edge of the spade, killing

him outright. And when I was ten, I wanted to go to Canada, and I, too, wanted to kill bears with spades.

Later on, when I was twelve, I went to Dean Close School, Cheltenham, and I remember a lecturer coming to talk about Canada. I recalled little of what he said, but there was something he did that vividly impressed itself on my mind. He was dressed in a tail coat with stiff front, stiff collar and white tie, and at one stage in the lecture he caught hold of his collar and shook it savagely and said, "Out in Canada we don't have to wear these durned things, we can wear soft collars, or no collars at all." At that age I had to wear a stiff collar, which I strongly resented, and I wanted to go to some country where I could wear a soft collar, or, better, no collar at all. That was my second call to Canada.

It was not until I was seventeen that the final appeal to go there came to me, and the decision that I ultimately made as the result of this has affected my whole life's work. An old time pioneer, Bishop Lloyd, returned from the Western Prairies. He said he wanted men who would go out there and throw in their lives with the lives of the Canadians and build a little bit of the old country over the seas. He said Canada wanted men who would go ahead of the railway and blaze the trail.

As a youth of seventeen, that sounded fine to me. There was something romantic about blazing the trail, though at that time I knew little of what it really meant. I went home and told my people that I wanted to go

to Canada. The news came as a blow to them, but when they found that I had set my heart on it, they showed great fortitude as I packed up and set out on my first real adventure, which I have never since regretted.

For three and a half years I was in the hard school of the open spaces, but it proved the best sort of character training. I homesteaded South of Saskatoon and pitched my tent on Beaver Creek, where in the small hours of the morning I took delight in watching the beavers and their interesting ways. It was then that I had my first experience of stalking these timid folk. They worked with great caution, and it was some time before I became skilful enough to be able to creep up close to them without being observed. I was impressed with their industry, which resulted in the beneficial control of the stream flow, for they catch and save from loss tremendous quantities of the earth's best plant food. They appealed to me as real little forest conservators. There, on Beaver Creek their work continued for many weeks, and I watched it with increasing interest. Finally they constructed a dam across which I could walk. It was over forty feet in width across a stream which had been less than a dozen feet wide when they started building. In the winter I returned and was thrilled to find a large beaver house, whose top protruded above the ice to a height of three or four feet. This looked like a miniature crater of a volcano, with hot air and steam instead of smoke exuding from the summit, upon whose fringe the snow had melted to

freeze again in the form of icicles as it trickled over the edge. How many beavers were inside I never knew, but their dam had flooded about twelve acres of meadows in the upper reaches of the Creek.

Day after day, in the Spring of the year, I would sit on a gang plough, breaking virgin prairie with a six-horse team. For blankets I traded green cayuses from the Indians, broke them in and made them quiet to ride and drive. These were my broncho-busting days which provided many excitements. Once, when calling upon a farmer who had just had a round-up and had corralled a hundred and fifty wild horses that had been ranging on the prairie, a challenge came to me. One of the bunch of mustangs had given the cow-punchers the slip, having taken a seven-foot corral at a standing jump. For two days much time had been wasted in trying to catch the beast. He was a beautiful creature to look at, with splendid action. Pointing him out to me the rancher said, "Say boy, if you can ride him, you can have him as a present." I eventually got him lassoed and tied up to the corral, pitched my stock saddle on his back which was immediately bucked clean into the air. I picked it up and again pitched it on his back, only this time I cinched it up, took him out into the stubble and prepared to mount. I had no sooner got my left foot in the stirrup and was swinging myself into the saddle when he gave a terrific forward and sideways buck, sending me flying, smashing the bit on the off side and leaving me with one line in my hand. After getting him

fixed again, I made another effort to mount and reached the saddle, but this time he reared high in the air and I only just had time to slip one side and allow him to come backwards and fall clear of me. As soon as he got to his feet, I caught the horn and threw myself into the saddle, this time managing to retain my seat in spite of a display of bucking fit for any competition. He then went off at a gallop, so giving him the rein, I concentrated on keeping my seat and rode him that same Saturday afternoon a distance of twenty-five miles, when I put up with a friendly farmer for the night. The following day, I rode him home and from then on never had any more trouble with him, and he proved to be the best horse I've ever ridden.

It was in the lumber camps, near Prince Albert, when working as a lumberjack and swinging the axe that it tore my heart to see the colossal waste of trees, and it was then that I decided to qualify myself for forestry work. I was one of the first hundred students at Saskatchewan University at Saskatoon in Canada, and in 1913 after three and a half years in the Northwest I sold my ponies, buggy and sleighs, returned to Winnipeg and travelled down to Chicago on the Big Potato Train. This was my first time of entering the States.

Here I was delighted to renew my childhood friendship with my old nurse and governess, who had preceded me to Canada, where she had won the gold medal in training for hospital nursing, and afterwards migrated to Chicago, where she was nursing for one of the lead-

Climbing for Cocoanuts

ing physicians. I found her comfortably settled in a sumptuous apartment in the Sherman House, which was then one of the leading hotels in the City. After a few delightful days I came on to New York, where I boarded the Olympic for Southampton and was met by my father on Christmas Eve. The following Spring I went to Cambridge to continue my studies, and later, as a trooper, joined King Edward's Horse.

The World War found us in camp at the old Cavalry Depot at Canterbury. Two days before War was actually declared we were having annual Regimental Sports. Having been picked to tent-peg for my troop, I had just carried my first peg with a flourish when all the sports were stopped. We were then paraded and mobilized, and given a chance to volunteer for service overseas. To a man, everybody came forward and we expected to proceed to France on the following day, but instead of that we had to hand over our trained horses, as Remounts for the regular Cavalry. Next we were sent to commandeer young hunters in the home Counties. At some hunting stables in Essex I found a little blood mare which must have been worth at least fifteen hundred dollars. Her charming young mistress was loath to part with her and shed bitter tears, although I tried to console her, telling her the War would be over in a few months, that I would take great care of her pet, always ride her myself, and bring her back when the frightfulness was over. This promise I was unable to keep, for this same little mare came to grief in a

stampede at Alexander Palace, and it almost broke my heart when the Vet had to shoot her, since she had broken her cannon bone.

Our commanding officer, Colonel Sanderman, had been shot through the lung in the South African Campaign, and his doctors at the outbreak of War had given him eighteen months to live. He was now determined to die leading a charge, and the whole Regiment entered into his spirit and wanted to follow his example. The spirit created by our old Colonel and my beloved Major speeded up our training in a phenomenal way and by the beginning of November we really thought that we were ready for the Front. But alas, one morning, the Major had a letter from Lord Kitchener, asking him to recommend as many of us as were efficient for commissions, as we were better suited to be Officers. At that time there had been heavy casualties in the commissioned ranks, and the life of an Officer at the Front was but ten days.

We were paraded in the form of a square. The Major paced up and down with the War Office letter in his hand, trying hard to summon courage to break the news to us. It had been his great ambition to take us to France as a unit, and like the Colonel, he, too, wanted to lead us in a charge. I shall never forget the tension of those moments, for after pacing up and down several times trying in vain to pull himself together, the Major, gallant fellow that he was, the Major who could curse us like a trooper if occasion necessitated, became a big,

blubbering child, burst into tears and had to retire. In a few minutes, however, he had collected himself sufficiently to be able to address us. He read the letter, which explained the seriousness of the situation, and the urgent need for Officers. When he had finished this he said: "You have to decide what you wish to do. For my part, as you know, it has long been my ambition to lead you in a charge and die with you. But it seems that Cavalry as yet is not wanted. We are to be kept in reserve. It may be that the call has come to you to die a different way. The decision rests with you. Parade will now dismiss and reassemble in half an hour's time, when you will all have to tell me what you intend to do."

Upon this we silently broke up, and joined our college friends in little groups. It was obvious that we had to make a momentous decision, and this very quickly. Few of us wanted the responsibility of being officers, and all of us had made up our minds that we would die together. That was the supreme idea. We knew that we must die sooner or later, and we preferred to stick together. On the other hand, a fresh and unexpected call had come. We realized it was no time to be sentimental about the Regiment or even our dear Major and Colonel. If Kitchener wanted us as officers, we should have to go.

Within half an hour we were paraded again and one hundred and thirty of us handed in our names for commissions. Within a few hours we had joined through our respective O.T.C.'s at Oxford and Cambridge, and I

was sent to 5 B Reserve Brigade. My commanding officer was Colonel John Harvey, who had been famous in India as commanding the Tiger Battery. My acting Major was Lieut. Fletcher, who within ten days of my arrival was forced to go into a hospital as the result of an old hunting accident. I was now left in command of the Battery, which consisted of eight hundred Irish Reservists, six hundred horses, and two guns. In addition to these responsibilities I was made Riding Master, and the only time I had for working up my Field Artillery Training was at night time, after dinner, which I did with an old Sergeant Major who had just returned from the Battle of Mons. Before going to France myself, I passed out five hundred Drivers for the Front. Those were happy days that I spent at Ballincollig. In spite of my strenuous duties I generally managed to hunt two or three times a week with the United, Muskerry or Duhallow. I found that following the hounds was the best sort of training for my Drivers, and we often fell in with the hunt when they were in the neighbourhood.

In the early days of 1915 I proceeded to France and after a brief stay at Harfleur, the base camp, I went up the line to fill the first officer casualty in the 115th Battery, 25th Brigade, thus becoming First Temporary Officer in the First Division of the Old Army.

But I am not going to fight my battles anew, for I recall the lines written by a brother Officer in my Division.

My Boy Momudu Saying his Prayers

"Some fight their battles all anew,
And paint the rôle in vivid hue,
My sweetest memories are of you.
My Dug-out."

Suffice it to say that I was three times smashed up and was finally invalided from the Army in April 1918, when after spending the summer doing welfare work and paving the way for the Ministry of Health I returned to Cambridge to complete my Forest studies, while at the same time lecturing for the Army School of Education. For this purpose I was attached to Horse Guards Headquarters Lecturing Staff and during the vacations from Cambridge I visited many camps where soldiers were waiting to be demobilized. I found that as the result of reading an eminent politican's speeches about "Homes for Heroes," many of them were under the impression that they would never have to do another's day work in their life, but they would be given ten acres and a cow and a little house, where they could live happily ever afterwards. It had not occurred to them that when they returned to civil life they might again have to work.

The memory of many fine gatherings remains vividly with me. On one occasion when I arrived at a great Military Depot, where I had been advertised to lecture on "Reforestation in Great Britain and How to Obtain Posts," over a thousand had turned up, although attendance was voluntary. Of course, first of all, I had to in-

form my hearers that I was not responsible for the advertised title of my lecture. Although certain recommendations had been made to Government, the Foreign Policy was not at that time known. Already there had been seventeen thousand applications for a possible forty or fifty posts. The first two rows in the lecture hall consisted of Staff Officers. Behind them were other officers of all ranks, perhaps as many as forty or fifty in number. Non-commissioned officers and men completed the interested gathering. They had evidently come in search of a short cut to the simple life. I explained the qualifications of a Forestry Officer could not be acquired without arduous training, although many thought that all that it was necessary to do was to put on a tweed jacket, smoke a calabash pipe, sit on a log in the forest and watch the trees grow. I told them that the training of a Forester was a long and difficult process, demanding many years of concentrated work. First of all, he had to take honors in a Science Trip, then on the top of that it took two years to collect a Diploma in Forestry. After that, practical work had to be done for at least from one to two years and a probation period would have to be served. It was not to the would-be Forest Officers that I had come to talk that afternoon, but to those who had thought of taking up small holdings. I wanted to show them how they could turn a precarious existence into a living by working during the winter months in Government Forest Plantations and thus supplement anything that they might glean from their holding. I had to break

it gently to them that they might possibly find it necessary to work again even for private owners. Forestry was a task in which any man might engage with pleasure and profit. In planting trees man was forever safeguarding the future, and the woodlands that we enjoy today were our heritage to be handed down, unspoiled, and if possible, improved, for the happiness of posterity. Generally at the conclusion of such gatherings a lively question period ensued and much interest was aroused. I regard those days and the reconstruction work accomplished with real satisfaction, for today, thousands of families have settled on the land and extensive reafforestation work has been carried out with lasting benefit to the people.

Becoming a fully trained Forestry Officer, again the wanderlust seized me. This time the call came to Africa. Just as Richard Baker had influenced me towards Canada, so another great pioneer explorer drew me in this direction. Samuel Baker had been a very successful coffee planter in Ceylon, but he was an explorer by nature. He dreamed of discovering the source of the Nile and he eventually set out from the Sudan with three hundred carriers and after many adventures arrived at Masindi, where he made friends with King Kabaraga and other Chiefs, and eventually reached Ripon Falls where the Nile tumbles out of Lake Victoria.

As a small boy I was brought up on his hunting stories and I always wanted to get to know his country, but it was not until now that the chance of my life came.

Upon being appointed Assistant Conservator of Forests, I proceeded to Kenya in November 1920 and after my first tour of service, with the Governor's permission, spent my leave going over this same territory covered by Samuel Baker. It was a real pleasure to meet Dohaga II, the Omukama wa Bunyoro who was reigning in the place of his father Kabaraga, who for many years had been banished to the Schelles for political reasons. Two years previous to my arrival Dohaga had approached the Government with a request that his old father should be allowed to return and the announcement that his request had been granted was made to synchronize with my visit to his kingdom. That day I preceded Dohaga into the House of Parliament and sat with him on his throne of leopard and lion skins when the resident opened the session and announced that the old king would be allowed to return and be at peace once more in his own land. This was the signal for great rejoicing and Dohaga and his people loaded me with presents and tokens of their affection. I found he guarded in his palace most religiously three souvenirs, the first was a blue Venetian vase and bowl, which was a present from Samuel Baker. The second was a sword which had been sent to King Kabaraga by the Calipha at Khartoom, who had murdered Gordon, with the request that Kabaraga should cut the white man's throat. Kabaraga sent back a message to the Calipha to the effect that he would keep his sword to remind him of his bloody ways, but he would not raise it against his friend Bwana M'devu,

meaning the Master with the Beard. The third heirloom was an ordinary commercial almanac, with a picture of Baker, which the old exiled King found in an Indian shop. He had acquired it and sent it as a present to his son. All these three mementos were shown to me with great pride, for they all loved the old explorer and admired him even as I had done from a child.

Amongst my presents was a lucky emblem, a pair of leopard claws mounted and beautifully worked with fine beads. This beautiful ornament had been made by one of the Princesses and Dohaga presented it to me with the words, "Great White Chief, this will bring you great good fortune." When I was thanking him I said I was curious to know what kind of a fortune it would specially bring me, that I might look out for it and recognize it when it arrived. His reply was, "Great White Chief, you will have many children." That was indeed encouraging news for a poor bachelor who had never been fortunate in love. At dinner that night upon showing my new present to my hostess, the wife of the resident, she exclaimed, "I'm green with envy. My husband has been here fifteen years and has never yet had one of those presented to him."

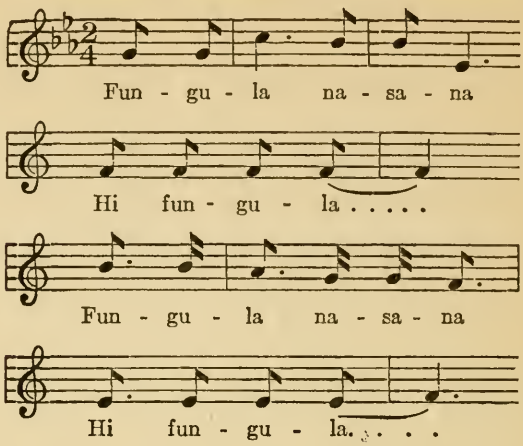
A day later I passed on my way to Butiaba on Lake Albert, and went on board the old "Samuel Baker" which was then used for crossing the Lake to the Belgian Congo side. Sentiment and associations made me sleep on board, although we were to sail at dawn on the "Livingstone." This latter boat was much smaller but

with deeper draft, and quite unsuitable for the upper reaches of the Nile. That night we stuck on a sandbank, and all efforts proved fruitless to get her off, so there we had to stay, high and dry, in midstream. With me on the "Livingstone" were other people who had come on board at Butiaba. There was an English Bishop, two elderly American ladies who had been round the world and were getting material for the last chapter in their book. They had with them a precious parrot they had brought from China. There was a South African woman who had an estate in Kenya. She was accompanied by her farm manager, a New Zealander. Last, but not least, was Ching, my Serval cat who looked lovingly on the parrot. By morning, the party was beginning to realize the dire plight that they were in. The "Livingstone" could not go backwards or forwards, and renewed efforts to shift her proved worse than futile, for she was becoming deeper and deeper imbedded in the sand. It looked as though she would have to remain there until the Nile rose, which would not be for some months. After a conference we decided to take a lighter which we had been towing. It was a heavy iron craft, which would well accommodate us all, together with our boys. We took six oarsmen and a coxswain, spread a bit of sailcloth over the stern roughly tied to four oars, to make an awning, and set out on a journey which was something under two hundred miles. The sun was beating down and was pitilessly hot.

It was obvious from the very start that the oarsmen

were not relishing their task, and in truth this was really more than they had bargained for. After an hour we were making very poor headway and being able to make myself understood I was commissioned by the party to take charge and come to some agreement with them. This I now did with the result that they soon dug their oars in and bent their backs to cheerful song. All that morning they rowed without stopping and in the afternoon we went ashore and gave them twenty minutes' rest after which we returned on board and continued our journey downstream. When night came, camp beds were set up and everybody retired under their mosquito nets. Being responsible for our progress, for my part I did not undress, but lay resting quietly enjoying the starry night. Presently the oarsmen slackened off, and, one by one, came to rest on their oars. They must have been terribly tired, and it was obvious to me that it would have been less than futile to have peremptorily ordered them to continue. I waited for twenty minutes, during which time I was able to recall the lilt of one of the songs they had been singing that morning. Then I got up, took one of the stroke oars myself and started rowing while singing the song I had learned that morning. It went like this

Fun-gu-la na-sana
Hi-fun-gu-la
Fun-gu-la na-sana
Hi-fun-gu-la



This had a magic effect on the tired boatmen. One after another they woke up and started to row again, keeping time to my song, in which they lustily joined. As soon as the five men were working, I handed back the borrowed oar to its owner and for a whole hour they sang and rowed with good spirit. By this time I had remembered another song which I suggested they should sing to me. The rhythm was altered, but the rowing continued. So on, all through the night they kept going, and at dawn I woke the Bishop and the New Zealander, and got them to take a turn stroking the boat. For my part I took the helm and sent the coxswain to take another oar, while the other three were manned by the strongest of our servants. Thus we were able to give the tired oarsmen some rest and refreshment. The Bishop had stroked at Cambridge and the New Zealander was a good oarsman, but twenty minutes exhausted them

Cotton Spinning

both, and they were glad to hand their oars back to the boys. For two and a half days we continued without stopping except for a few minutes twice a day. We reached Nimule in record time and after a trek of ninety-five miles across country caught the Nile steamer at Rajaff.

When I returned to London I carried a message of greeting to the Chief Boy Scouts from The Men of the Trees, which at the request of the Dominion Secretary I broadcasted from Marconi House, and from that time onward increasing interest has been shown in Forest Conservation and Tree-Planting. Later I started teaching by Radio and gave the first talk on trees. I concluded by saying that if any boys and girls cared to write essays I would correct them and mention the name of the best essay writer the following week. The result was that thousands of essays arrived and a special staff had to be detailed to cope with them. The experiment was at once voted to be a success and from then onwards teaching by radio has continued. Amongst the many essays there was one that came to my notice written by a small child from the county of Essex. With it she sent a covering letter which ran something like this:

"*Dear Sir,*

"*I live in a small village in Essex. There are only fifty children in my village and on hot days Teacher lets us sit in the boy's porch. This afternoon we had the loud*

speaker for the first time and as you said you would correct our papers, I thought I would like to try and so here it is.

"Yours respectfully,
"Winifred Bailey."

The essay started:

"Of all the trees in the forest I think the Tropical trees are the most beautiful, but in the desert there are no trees to rest the tired eyes of the wandering Arab and so he mounts his steed and rides away ever in search of trees."

I had said nothing about tired Arabs in search of trees but the child had let her imagination go in a delightful manner. Later she had remembered quite a lot of what I had told them of the oak and the ash—the old oak that had been strangled to death by an ivy that was climbing up him and how a forest scout, knowing the language of trees and realizing that the old oak was in distress, came up and with a few well-aimed blows from his sharp axe cut the ivy asunder so that once again the old oak could breathe freely and tell the story of the forest. Winifred Bailey had remembered a lot of this and then she started to ramble on in her innocent childish way.

"Sometimes in England you see tired women lying under the shade of an oak . . . and sometimes men."

Altogether it was a delightful essay, and it reminded me of the story of the frivolous Don at Cambridge, who, when the serious minded Undergraduate, with a poetical turn of mind, said, "On a summer's day I love to lie on the grassy sward near a shady tree with a book," the Don retorted, "Why with a book?" However, Winifred Bailey was mentioned on the radio the following week, as having contributed the best essay and since those days, teaching by radio has become a firmly established institution and, by it, millions of people both young and old have been made tree-minded.

Chapter XXVII

WHAT WILL THE WHITE MAN DO NEXT?

Radio has stirred the imagination of millions of people in both Europe and America, and opened up unexplored possibilities quite unrivalled in the history of science, amongst masses of people to whom the world of books was before almost unknown. But in Africa Radio is a voice in the wilderness, heralding a new order of education in the evolution of the African. The significance of the new science of radio-telephony as a means of distributing news and for the purpose of providing recreation is already well known, but when radio is fully applied to countries where reading is almost unheard of, it will have a new and deeper significance. There are vast tracts of land in Equatorial Africa where newspapers do not exist, and where the only news is carried by word of mouth, or by drum signals from hill to hill. Millions of the inhabitants are entirely illiterate, so that even if it were possible to print and distribute newspapers, they would be useless.

Broadcasting, although it does not supplant journalism, acts very much in the same way. If that is true, even to a limited degree, in the countries of Western civilization, imagine how broadcasting will affect vast

populations, widely scattered, with few and inadequate means of communication.

The dream of every idealist is a state where harmonious human action exists, and anything which tends towards bringing about such a state of affairs, calls for careful consideration. It seems inevitable that broadcasting will assist materially in knitting together widely differing peoples and bringing about better understanding.

The coming of the "iron horse" has joined town to town, while motor transport has connected villages and far distant parts with the railroads and waterways. But improved means of transport cannot be turned to full account so long as other means of communication are inadequate. Vast tracts of country remain unproductive despite the fact that a railroad often passes through them; the wilderness cannot be made to flourish, blossom, and bring forth fruit merely by making a road through the heart of it. Moreover, improved facilities for transport cannot be turned to full account so long as language barriers remain. It is a fact that one of the great difficulties presenting itself to administrators and colonists in many parts of Africa, is the enormous number of different dialects. How can the advantages of co-operation in agriculture and the marketing of products be shown to the indigenous tribesmen so long as these great language barriers remain? The people must be taught how to grow food and turn to account the latent resources of their country. And having learnt the

art of production, they must be given a common language to enable them to carry on both internal and external trade along the new roads and railways to the outside world, and so turn to the best account their local products.

The subject of education in Africa is receiving a great deal of attention by many interested students in the United States, and the present systems are under severe criticism. Much valuable work, however, has been carried out by Dr. Thomas Jesse Jones of the Phelps-Stokes Fund and his committee in cooperation with the International Education Board. In a recent report on Education in East Africa this great student of education summarizes the situation as follows:

The trusteeship of Europe for Africa is shown in colony, protectorate and mandated territory, where Great Britain, Germany and Belgium have contributed to the development of country and people. The railway has opened the country from coast to lake. Already the cotton fields of Uganda count in the trade of the world. Triumphs of medical research are conquering tropical disease. A new day for Africa has begun to dawn. Alike among the wild Masai, the virile Kavirondo, the responsive tribes of Uganda, on the Highlands of Kenya and on the shores of the Lake, education is preparing the African for life and for leadership. Christian communities are developing into ordered life. Missionaries and governments are jointly at work. As the Africa of today has moved far from the Africa of yesterday, so

the Africa of tomorrow begins in fuller measure to emerge.

But one great drawback to the present system of education in agricultural communities is that, in the great majority of cases, it necessitates the removal of the pupils from the land. It crowds the young people together in the towns where food is dear. In their spare time they have little, or nothing, to do, and often take to thieving as an easy means of existence. But the greatest disadvantage of the present system is that once the African youth has left the land to attend school, he rarely, if ever, returns. All family ties are cut; he begins to disparage his honest old parents. Stealing to him is no longer a crime, unless he happens to be caught. Now that he is "book-savvy" he can live on his wits. He may write letters for his bush brother on payment of enormous fees, and some day he might even have the chance of getting a job as a clerk in a Government office. Even the most casual observer cannot fail to see the innumerable defects in the present system, especially in agricultural communities, where the prosperity of the people depends upon the cultivation of the land, and the prosperity of Africa is essentially bound up in agriculture.

It will be my purpose to show how wireless telephony could be used to supplement, if not to replace, the existing system, and at the same time to remedy some of its worse defects and assist the people to increase production and utilize the other improvements in transport and communication. When once the Africans can be in-

spired with confidence in the loud-speaker, it will become a very valuable aid in the administration of their country.

Under present methods, when promulgating orders, it is often necessary for the Political Officer to call a "Baraza" or "Palava"—a meeting of headmen or Chiefs—at which verbal instructions are given. In the first place runners have to be sent out to summon the Chiefs and Headmen, or District Heads, who may have to come a considerable distance, with consequent waste of time. Often it takes a week or ten days to assemble the members of this meeting, and when it is over, the members have to return again to their own Districts and the whole business of sending out runners has to be resorted to, only this time the people to be called together are the members of the village councils. These old men may not have to travel so far as the Chiefs, or District Heads, but considerable time is lost before all the Chiefs have held all their Councils. When the Councils break up, the members return to their villages, where they summon together the heads of families, who in turn instruct their followers. Finally, perhaps after a month has elapsed, the message of the Political Officer may get through to the people. The probability is that it never gets through to them in its original state. It is hardly necessary to comment on the possible inaccuracies and perversions which may arise in consequence of the message having been passed through so many people.

Obviously the introduction of broadcasting should be

A Forest Mother Poses for the First Time

able to remedy all this, and transmit orders with accuracy and speed.

But will the African take to this new invention? To answer this question it may be necessary to remove some prevalent misapprehensions with regard to Africa and the Africans. In spite of vast unsettled areas mysterious and unknown, the native dweller is for the most part an intelligent human being. Illiterate certainly, in the vast majority of cases, but with a store of folk lore and music of his own, many useful and often artistic handicrafts, considerable linguistic abilities, and a very definite code of morals. It has too long been the fashion of Europeans to disparage the customs and beliefs of native Africans, and dismiss them airily as relics of barbarism, whereas it is a matter of fact that the African native has truly adapted himself to his natural surroundings. What we have in the past lightly dismissed as barbarism is really a highly developed "naturism." An adequate study of the tribal customs and capacities of those who are still thought by some people to be in "barbaric" and primitive stages, will more and more reveal the fact that the present condition of the masses of the African peoples is normal and comparable with that of other peoples at the same stage of development. Their folk-lore, their handicrafts, their native music, their forms of Government, their legislative powers, all are substantial evidence of their adaptability to their environment.

To understand how broadcasting will be accepted

by native Africans, we must recall what tremendous changes have taken place in the lives of the tribesmen of Equatorial Africa in recent years. A few decades ago they were living in constant fear of hostile neighbours; their time very much occupied in intertribal manœvres and skirmishes, when suddenly Western civilization burst upon them and hundreds of white men came into their midst. Upon the rest of the world civilization dawned slowly, and built itself up by imperceptible degrees. But upon the "Great Dark Continent" western ideas burst as suddenly as its own tropic sunrise. At once they were invaded by the latest means of transportation and communication. Bicycles and motor cars may well have seemed the materialization of some devil's magic to peoples who had not yet arrived at the wheelbarrow stage, and the telephone a truly supernatural form of communication to races whose news had hitherto been transmitted by means of drum taps from hill to hill. But Africa has taken with amazing rapidity to these, at first terrifying, innovations. The native boy loves to chatter with his far-distant friends over the telephone.

There are, however, vast tracts of Africa where the telephone does not penetrate. It is then in these regions, which form so formidable a problem for the administration, that our new and fascinating toy, broadcasting, might be utilized, not merely as it is in many countries, for an evening relaxation—an amusing fireside hobby, an agreeable and easy complement to the evening

paper, theatre or cinema, but as a tremendously powerful means of disseminating Government orders and information, news, and, above all, agricultural instruction.

When the first news of radio reached Africa, I was camping in the Highlands of Kenya, and after the day's work was done, as was their custom, several of the Chiefs and Headmen were sitting round my camp fire. My English mail had arrived that day, and I had been reading a copy of "The Times," which described the more recent wireless happenings. My native companions were talking of the doings of the day and had come to receive instructions for the morrow.

In their own language, I explained to my campfire audience this latest invention. At first they were mystified, but when the real meaning began to dawn upon them, now and again one of their number would ejaculate, "Quali shauri ya Mungu" (Truly it is the work of God.) Then, after a lengthy explanation, when they were really beginning to understand, I told them that I was going away from them, but that I might be able to send them an instrument which they could fit up according to my directions, so that wherever they might be each night, as they camped in the forest, they would be able to hear me speak. I said, "My voice will come to you, but I shall be far away. If you listen well you will know what to do on the morrow."

This they unanimously agreed was a good "Shauri," and again and again they repeated, "Quali shauri ya Mungu. Quali shauri ya Mungu."

This remarkable attitude towards what was so new to me, convinced me that they knew far more about quick inter-communication than I had given them credit for, in spite of my knowledge and personal experience of many instances of their mysterious methods of transmitting messages. Many people who have lived in Africa have wonderful stories to tell of news that has travelled hundreds of miles in an incredibly short space of time. This was brought home to me very forcibly on one occasion. When I was leaving Nairobi for England, on the platform I suddenly decided to return overland by way of the Nile instead of the ordinary sea route. To my astonishment, all along the route I was met at the stations by natives who had in some cases walked long distances to reach the line of the railroad, to bring me greetings and bid me farewell, showing that my change of program had reached them much quicker than by train. Taking into consideration the fact that the distance between Nairobi and the place of my last farewell to the natives of my district, was greater than from London to Edinburgh and my arrival unsignalled by telegram or telephone, there can be but one explanation. It was evident that messages had been sent, for they knew my movements and were acquainted with my news. As the train drew into the station, my friends were waiting on the platform and walked along the train until they came to my carriage, where they stood until I presented myself at the door and exchanged greetings with them. I had previously had many experi-

ences of the miraculous way in which messages were transmitted over long distances. Often, when a well known Chief or White Man has died, within twenty minutes or half an hour one of my boys has brought the message to me. Perhaps four or five days later I would receive an official communication by runner who had started off to bring word to me soon after the event happened. But the explanation of the means by which the African performs this rapid and spontaneous transmission of thought and feeling through great distances, has yet to be adequately shown.

For a long time it has been thought that in Africa a definite drum code was used, but those who have taken pains to study carefully and investigate the mystery of rapid communication, are coming to the conclusion that the drumming is used primarily for signalling or for creating an atmosphere in which the reception of the messages is possible.

There is still a mystery surrounding the whole question; but it must of course be borne in mind that the messages which the African has to transmit are of necessity limited to the scope of his primitive necessities. But with this inherent capacity for the transmission of messages, I am convinced that all that African natives need is proper instruction and direction in order to become experts in this great modern invention, and when once established as a means of communication, there is no reason to doubt that it will be accepted as just another example of the white man's magic, and good "Ju-ju."

At the outset it will of course be necessary to gain the confidence of the people, and to overcome any possible suspicion of the instrument itself and to arouse in them an interest in the subject. A program could be arranged consisting of native folk-lore, interspersed with a musical selection. The whole would be broadcast in the languages of the people as well as in English, and in time we might have the African prototype of the people who tell "Bedtime Stories" to the children throughout America. From this stage the program could be gradually developed. Extracts from Æsop's moral stories—which are already translated into some local dialects—might be included, and in a very short time broadcasting could be used not only for entertainment, and for promulgating orders but for direct instructional purposes.

Not only could broadcasting be used as a means of providing instruction in agriculture, but it should be possible to give the African smallholder hints on what to grow, and seasonable instruction as to the best markets for the disposal of his produce. Wireless thus used would not only uplift the African, influence his surroundings and make life more attractive for him, but it should speed up his production of such raw materials as are of vital importance to us all.

As for the technical consideration of wireless, it is only necessary to see how readily the African takes to any kind of mechanics. He is enormously interested in the engine of a car, and although at first the wirings of

a two-valve set—or any other kind of wireless apparatus —may be more intricate, it will not be long before he can be taught its manipulation. Let it be remembered that the practical use of such things comes before the knowledge of construction. They may not at present understand how to make a gramophone or a telephone, but this does not prevent their using these instruments.

To the illiterate African, wireless will hold a peculiar significance. In future it will not be necessary for him to waste months or years in a foreign school amongst strangers who, although meaning well, often violate his most cherished customs and beliefs. He will not have to become an inferior type of Karani (clerk) before he is instructed in better methods of agriculture, but right from the commencement of the introduction of the loud-speaker he will be able to put into practice the lessons learned, which will materially assist him, without delay; for the evening bulletin will include orders which he will be able to put into practice on the following day under the supervision of trained native farmers of his own race.

Much has been said and written about British trusteeship for Africa and the Africans, and I submit that the introduction of radio telephony in Africa is not merely an interesting experiment, but a moral responsibility. As colonists in Africa, and trustees for its country and people, it is manifestly a duty to assist them to open up the country and to render their environment more suitable to their future existence. Just as roads must be

constructed, and trees planted, so other means of development must be improved, and every effort made to carry out our responsibilities by the use of this, and every other possible means to interest the African in the natural resources of his country.

These lands contain virile populations who are anxious and willing to follow any sound leadership which will tend to build up prosperous communities, and improve their surroundings. There is no doubt that under proper management broadcasting could become a valuable aid to this African development, and by the common use of English, side by side with native dialects, it will knit more closely together those great peoples striving for the light of day, for it is only as we can banish primitive suspicion through mutual understanding that difficulties created by language barriers will be removed.

As it can be readily understood, broadcasting in Africa has great potentialities both for good and for evil. Under wise guidance it should become an inestimable aid in the development of the country and provide just that point of contact with their white "bwana" which will maintain interest in work and provide that moral support of daily direction so much needed.

It will not be long before these same people who have taken so readily to many other inventions will welcome wireless as a further step in their development and prosperity.

When my native boys first saw the aeroplane, it called forth exclamations of surprise, but soon they

Okwen Tree in the Mahogany Forests

ceased to marvel. Looking skywards, they exclaimed, "Quali indegi m'kubwa sana," meaning, "Surely a very big bird," but after a pause for thought, they realized its significance and murmured admiringly, "Mjunga n'fanya nimi sasa," "What will the white man do next?"

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